GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112176**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-1**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.2 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 18:45**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	5,000
11097-69-1	Aroclor 1254	**11,000**	2C (10000)*	ug/Kg	5,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	170	120	**71 %**	30 - 150 %
	Decachlorobiphenyl	170	110	**66 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	170	120	**71 %**	30 - 150 %
	Decachlorobiphenyl	170	100	**61 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112177**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-2**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.1 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 02:29**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	19,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	19,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	19,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	19,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	19,000,000
11097-69-1	Aroclor 1254	**40,000,000**	2C (39000000)*	ug/Kg	19,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	19,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	19,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	19,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	65	n/a	d	30 - 150 %
	Decachlorobiphenyl	65	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	65	n/a	d	30 - 150 %
	Decachlorobiphenyl	65	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112178**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-3**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 02:53**	Dilution Factor:	**20000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	12,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	12,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	12,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	12,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	12,000,000
11097-69-1	Aroclor 1254	**44,000,000**	2C (43000000)*	ug/Kg	12,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	12,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	12,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	12,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	100	n/a	d	30 - 150 %
	Decachlorobiphenyl	100	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	100	n/a	d	30 - 150 %
	Decachlorobiphenyl	100	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112179**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-4**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.9 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 03:16**	Dilution Factor:	**20000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	13,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	13,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	13,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	13,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	13,000,000
11097-69-1	Aroclor 1254	**42,000,000**	2C (41000000)*	ug/Kg	13,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	13,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	13,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	13,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	110	n/a	d	30 - 150 %
	Decachlorobiphenyl	110	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	110	n/a	d	30 - 150 %
	Decachlorobiphenyl	110	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112180**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-5**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**6.2 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 03:39**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	9,800,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	9,800,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	9,800,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	9,800,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	9,800,000
11097-69-1	Aroclor 1254	**47,000,000**	2C (43000000)*	ug/Kg	9,800,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	9,800,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	9,800,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	9,800,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	32	n/a	d	30 - 150 %
	Decachlorobiphenyl	32	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	32	n/a	d	30 - 150 %
	Decachlorobiphenyl	32	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112181**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-6**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5.6 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 01:18**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	2,200
11104-28-2	Aroclor 1221	BRL		ug/Kg	2,200
11141-16-5	Aroclor 1232	BRL		ug/Kg	2,200
53469-21-9	Aroclor 1242	BRL		ug/Kg	2,200
12672-29-6	Aroclor 1248	BRL		ug/Kg	2,200
11097-69-1	Aroclor 1254	**36,000**	e 2C (36000)*	ug/Kg	2,200
11096-82-5	Aroclor 1260	BRL		ug/Kg	2,200
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	2,200
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	2,200

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	36	24	**66 %**	30 - 150 %
	Decachlorobiphenyl	36	18	**51 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	36	26	**72 %**	30 - 150 %
	Decachlorobiphenyl	36	17	**48 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

e Indicates concentration exceeded calibration range for the analyte.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112181**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-6RA1**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5.6 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 14:42**	Dilution Factor:	**20**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	4,300
11104-28-2	Aroclor 1221	BRL		ug/Kg	4,300
11141-16-5	Aroclor 1232	BRL		ug/Kg	4,300
53469-21-9	Aroclor 1242	BRL		ug/Kg	4,300
12672-29-6	Aroclor 1248	BRL		ug/Kg	4,300
11097-69-1	Aroclor 1254	**33,000**	2C (29000)*	ug/Kg	4,300
11096-82-5	Aroclor 1260	BRL		ug/Kg	4,300
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	4,300
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	4,300

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	36	n/a	d	30 - 150 %
	Decachlorobiphenyl	36	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	36	n/a	d	30 - 150 %
	Decachlorobiphenyl	36	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112182**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-7**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**13 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 01:42**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	470
11104-28-2	Aroclor 1221	BRL		ug/Kg	470
11141-16-5	Aroclor 1232	BRL		ug/Kg	470
53469-21-9	Aroclor 1242	BRL		ug/Kg	470
12672-29-6	Aroclor 1248	BRL		ug/Kg	470
11097-69-1	Aroclor 1254	**7,300**	e 2C (6900)*	ug/Kg	470
11096-82-5	Aroclor 1260	BRL		ug/Kg	470
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	470
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	470

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	16	5	**32 %**	30 - 150 %
	Decachlorobiphenyl	16	5	**32 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	16	6	**35 %**	30 - 150 %
	Decachlorobiphenyl	16	4	**27 %** m	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

e Indicates concentration exceeded calibration range for the analyte.

m Surrogate recovery outside recommended limits due to sample matrix interference.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112182**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-7RA1**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**13 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 15:06**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	940
11104-28-2	Aroclor 1221	BRL		ug/Kg	940
11141-16-5	Aroclor 1232	BRL		ug/Kg	940
53469-21-9	Aroclor 1242	BRL		ug/Kg	940
12672-29-6	Aroclor 1248	BRL		ug/Kg	940
11097-69-1	Aroclor 1254	**10,000**	2C (9000)*	ug/Kg	940
11096-82-5	Aroclor 1260	BRL		ug/Kg	940
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	940
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	940

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	16	8	**52 %**	30 - 150 %
Column	Decachlorobiphenyl	16	6	**39 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	16	8	**54 %**	30 - 150 %
Column	Decachlorobiphenyl	16	8	**48 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112183**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-8**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**8.5 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 02:05**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,400
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,400
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,400
53469-21-9	Aroclor 1242	BRL		ug/Kg	1,400
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,400
11097-69-1	Aroclor 1254	**5,800**	1C (5700)*	ug/Kg	1,400
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,400
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	1,400
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	1,400

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	24	19	**80** %	30 - 150 %
	Decachlorobiphenyl	24	14	**57** %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	24	18	**78** %	30 - 150 %
	Decachlorobiphenyl	24	12	**50** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112184**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-9**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 04:03**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	12,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	12,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	12,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	12,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	12,000,000
11097-69-1	Aroclor 1254	**51,000,000**	2C (49000000)*	ug/Kg	12,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	12,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	12,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	12,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	40	n/a	d	30 - 150 %
	Decachlorobiphenyl	40	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	40	n/a	d	30 - 150 %
	Decachlorobiphenyl	40	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112185**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-10**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**4 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 04:27**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	15,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	15,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	15,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	15,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	15,000,000
11097-69-1	Aroclor 1254	**38,000,000**	2C (37000000)*	ug/Kg	15,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	15,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	15,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	15,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	50	n/a	d	30 - 150 %
	Decachlorobiphenyl	50	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	50	n/a	d	30 - 150 %
	Decachlorobiphenyl	50	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112186**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-11**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.9 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 04:50**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	21,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	21,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	21,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	21,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	21,000,000
11097-69-1	Aroclor 1254	**54,000,000**	2C (50000000)*	ug/Kg	21,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	21,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	21,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	21,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	69	n/a	d	30 - 150 %
	Decachlorobiphenyl	69	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	69	n/a	d	30 - 150 %
	Decachlorobiphenyl	69	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112187**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-12**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5.4 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-07-10 21:59**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	11,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	11,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	11,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	11,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	11,000,000
11097-69-1	Aroclor 1254	**67,000,000**	2C (62000000)*	ug/Kg	11,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	11,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	11,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	11,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	37	n/a	d	30 - 150 %
	Decachlorobiphenyl	37	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	37	n/a	d	30 - 150 %
	Decachlorobiphenyl	37	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112188**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-13**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.3 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-07-10 22:23**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	18,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	18,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	18,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	18,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	18,000,000
11097-69-1	Aroclor 1254	**70,000,000**	2C (67000000)*	ug/Kg	18,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	18,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	18,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	18,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	60	n/a	d	30 - 150 %
	Decachlorobiphenyl	60	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	60	n/a	d	30 - 150 %
	Decachlorobiphenyl	60	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112189**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-14**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**6.5 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 20:40**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,900
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,900
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,900
53469-21-9	Aroclor 1242	BRL		ug/Kg	1,900
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,900
11097-69-1	Aroclor 1254	**5,100**	2C (4300)*	ug/Kg	1,900
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,900
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	1,900
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	1,900

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	31	16	**52 %**	30 - 150 %
Column	Decachlorobiphenyl	31	23	**73 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	31	21	**68 %**	30 - 150 %
Column	Decachlorobiphenyl	31	27	**87 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112190**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-15**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**13 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 07:42**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	950
11104-28-2	Aroclor 1221	BRL		ug/Kg	950
11141-16-5	Aroclor 1232	BRL		ug/Kg	950
53469-21-9	Aroclor 1242	BRL		ug/Kg	950
12672-29-6	Aroclor 1248	BRL		ug/Kg	950
11097-69-1	Aroclor 1254	**2,700**	2C (2600)*	ug/Kg	950
11096-82-5	Aroclor 1260	BRL		ug/Kg	950
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	950
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	950

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	16	8	**51 %**	30 - 150 %
Column	Decachlorobiphenyl	16	11	**67 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	16	5	**34 %**	30 - 150 %
Column	Decachlorobiphenyl	16	13	**85 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112191**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-16**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.8 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-07-10 22:46**	Dilution Factor:	**500**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	160,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	160,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	160,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	160,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	160,000
11097-69-1	Aroclor 1254	**790,000**	2C (750000)	ug/Kg	160,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	160,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	160,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	160,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	53	n/a	d	30 - 150 %
	Decachlorobiphenyl	53	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	53	n/a	d	30 - 150 %
	Decachlorobiphenyl	53	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112192**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-17**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**0.64 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 08:06**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	9,400
11104-28-2	Aroclor 1221	BRL		ug/Kg	9,400
11141-16-5	Aroclor 1232	BRL		ug/Kg	9,400
53469-21-9	Aroclor 1242	BRL		ug/Kg	9,400
12672-29-6	Aroclor 1248	BRL		ug/Kg	9,400
11097-69-1	Aroclor 1254	**30,000**	2C (28000)*	ug/Kg	9,400
11096-82-5	Aroclor 1260	BRL		ug/Kg	9,400
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	9,400
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	9,400

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	310	180	**58 %**	30 - 150 %
	Decachlorobiphenyl	310	180	**57 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	310	200	**63 %**	30 - 150 %
	Decachlorobiphenyl	310	230	**73 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112193**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-18**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.8 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 13:12**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	310
11104-28-2	Aroclor 1221	BRL		ug/Kg	310
11141-16-5	Aroclor 1232	BRL		ug/Kg	310
53469-21-9	Aroclor 1242	BRL		ug/Kg	310
12672-29-6	Aroclor 1248	BRL		ug/Kg	310
11097-69-1	Aroclor 1254	**2,600**	2C (2600)*	ug/Kg	310
11096-82-5	Aroclor 1260	BRL		ug/Kg	310
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	310
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	310

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	52	25	**48 %**	30 - 150 %
	Decachlorobiphenyl	52	26	**50 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	52	23	**44 %**	30 - 150 %
	Decachlorobiphenyl	52	38	**72 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112194**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-19**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5.4 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 13:36**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	220
11104-28-2	Aroclor 1221	BRL		ug/Kg	220
11141-16-5	Aroclor 1232	BRL		ug/Kg	220
53469-21-9	Aroclor 1242	BRL		ug/Kg	220
12672-29-6	Aroclor 1248	BRL		ug/Kg	220
11097-69-1	Aroclor 1254	**1,500**	2C (1400)*	ug/Kg	220
11096-82-5	Aroclor 1260	BRL		ug/Kg	220
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	220
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	220

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	37	9	**26** % m	30 - 150 %
Column	Decachlorobiphenyl	37	9	**23** % m	30 - 150 %
Second	Tetrachloro-*m*-xylene	37	9	**25** % m	30 - 150 %
Column	Decachlorobiphenyl	37	14	**37** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

m Surrogate recovery outside recommended limits due to sample matrix interference.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112195**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-20**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.6 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 14:00**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	330
11104-28-2	Aroclor 1221	BRL		ug/Kg	330
11141-16-5	Aroclor 1232	BRL		ug/Kg	330
53469-21-9	Aroclor 1242	BRL		ug/Kg	330
12672-29-6	Aroclor 1248	BRL		ug/Kg	330
11097-69-1	Aroclor 1254	**2,800**	2C (2600)*	ug/Kg	330
11096-82-5	Aroclor 1260	BRL		ug/Kg	330
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	330
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	330

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	55	19	**34** %	30 - 150 %
	Decachlorobiphenyl	55	17	**31** %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	55	19	**34** %	30 - 150 %
	Decachlorobiphenyl	55	25	**46** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112196**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-21**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.7 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-07-10 23:10**	Dilution Factor:	**500**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	160,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	160,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	160,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	160,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	160,000
11097-69-1	Aroclor 1254	**1,000,000**	2C (970000)	ug/Kg	160,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	160,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	160,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	160,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	54	n/a	d	30 - 150 %
	Decachlorobiphenyl	54	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	54	n/a	d	30 - 150 %
	Decachlorobiphenyl	54	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112197**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-22**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.1 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 08:29**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,500
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,500
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,500
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,500
12672-29-6	Aroclor 1248	BRL		ug/Kg	5,500
11097-69-1	Aroclor 1254	**11,000**	2C (11000)*	ug/Kg	5,500
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,500
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,500
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,500

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	180	93	**51 %**	30 - 150 %
Column	Decachlorobiphenyl	180	90	**49 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	180	110	**59 %**	30 - 150 %
Column	Decachlorobiphenyl	180	110	**60 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112198**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-23**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.5 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 14:23**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	480
11104-28-2	Aroclor 1221	BRL		ug/Kg	480
11141-16-5	Aroclor 1232	BRL		ug/Kg	480
53469-21-9	Aroclor 1242	BRL		ug/Kg	480
12672-29-6	Aroclor 1248	BRL		ug/Kg	480
11097-69-1	Aroclor 1254	**5,000**	2C (4800)*	ug/Kg	480
11096-82-5	Aroclor 1260	BRL		ug/Kg	480
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	480
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	480

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	80	31	**39 %**	30 - 150 %
Column	Decachlorobiphenyl	80	33	**42 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	80	31	**39 %**	30 - 150 %
Column	Decachlorobiphenyl	80	43	**54 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112199**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-24**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.9 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 14:47**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	630
11104-28-2	Aroclor 1221	BRL		ug/Kg	630
11141-16-5	Aroclor 1232	BRL		ug/Kg	630
53469-21-9	Aroclor 1242	BRL		ug/Kg	630
12672-29-6	Aroclor 1248	BRL		ug/Kg	630
11097-69-1	Aroclor 1254	**5,000**	2C (4600)*	ug/Kg	630
11096-82-5	Aroclor 1260	BRL		ug/Kg	630
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	630
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	630

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	110	39	**37 %**	30 - 150 %
Column	Decachlorobiphenyl	110	39	**37 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	110	39	**37 %**	30 - 150 %
Column	Decachlorobiphenyl	110	61	**57 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112200**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-25**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.1 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 19:30**	Dilution Factor:	**1000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	380,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	380,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	380,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	380,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	380,000
11097-69-1	Aroclor 1254	**1,900,000**	2C (1800000)*	ug/Kg	380,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	380,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	380,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	380,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	64	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	64	n/a	d	30 - 150 %
Second	Tetrachloro-*m*-xylene	64	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	64	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112201**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-26**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**4.1 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 19:53**	Dilution Factor:	**1000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	290,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	290,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	290,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	290,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	290,000
11097-69-1	Aroclor 1254	**1,400,000**	2C (1300000)*	ug/Kg	290,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	290,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	290,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	290,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	48	n/a	d	30 - 150 %
	Decachlorobiphenyl	48	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	48	n/a	d	30 - 150 %
	Decachlorobiphenyl	48	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112202**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-27**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.7 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 20:17**	Dilution Factor:	**1000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	320,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	320,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	320,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	320,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	320,000
11097-69-1	Aroclor 1254	**1,600,000**	2C (1500000)*	ug/Kg	320,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	320,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	320,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	320,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	53	n/a	d	30 - 150 %
	Decachlorobiphenyl	53	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	53	n/a	d	30 - 150 %
	Decachlorobiphenyl	53	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112203**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-28**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.2 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 15:10**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	550
11104-28-2	Aroclor 1221	BRL		ug/Kg	550
11141-16-5	Aroclor 1232	BRL		ug/Kg	550
53469-21-9	Aroclor 1242	BRL		ug/Kg	550
12672-29-6	Aroclor 1248	BRL		ug/Kg	550
11097-69-1	Aroclor 1254	**2,600**	2C (2500)*	ug/Kg	550
11096-82-5	Aroclor 1260	BRL		ug/Kg	550
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	550
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	550

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	91	23	**25 %** m	30 - 150 %
	Decachlorobiphenyl	91	28	**30 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	91	23	**26 %** m	30 - 150 %
	Decachlorobiphenyl	91	31	**34 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

m Surrogate recovery outside recommended limits due to sample matrix interference.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112204**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-29**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.3 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 01:42**	Dilution Factor:	**500**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	260,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	260,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	260,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	260,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	260,000
11097-69-1	Aroclor 1254	**1,700,000**	2C (1500000)*	ug/Kg	260,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	260,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	260,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	260,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	88	n/a	d	30 - 150 %
	Decachlorobiphenyl	88	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	88	n/a	d	30 - 150 %
	Decachlorobiphenyl	88	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112205**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-30**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.6 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 02:09**	Dilution Factor:	**200**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	150,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	150,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	150,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	150,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	150,000
11097-69-1	Aroclor 1254	**1,600,000**	2C (1400000)*	ug/Kg	150,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	150,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	150,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	150,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	120	n/a	d	30 - 150 %
	Decachlorobiphenyl	120	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	120	n/a	d	30 - 150 %
	Decachlorobiphenyl	120	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112206**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-31**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.9 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 15:34**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	420
11104-28-2	Aroclor 1221	BRL		ug/Kg	420
11141-16-5	Aroclor 1232	BRL		ug/Kg	420
53469-21-9	Aroclor 1242	BRL		ug/Kg	420
12672-29-6	Aroclor 1248	BRL		ug/Kg	420
11097-69-1	Aroclor 1254	**1,700**	2C (1500)*	ug/Kg	420
11096-82-5	Aroclor 1260	BRL		ug/Kg	420
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	420
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	420

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	69	22	**32** %	30 - 150 %
	Decachlorobiphenyl	69	29	**42** %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	69	25	**36** %	30 - 150 %
	Decachlorobiphenyl	69	32	**47** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112207**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-32**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.2 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 08:53**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,000
12672-29-6	Aroclor 1248	**7,200**	1C (6600)*	ug/Kg	5,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	5,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	170	74	**44 %**	30 - 150 %
Column	Decachlorobiphenyl	170	67	**40 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	170	68	**41 %**	30 - 150 %
Column	Decachlorobiphenyl	170	81	**48 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112208**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-33**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.5 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 09:16**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	3,900
11104-28-2	Aroclor 1221	BRL		ug/Kg	3,900
11141-16-5	Aroclor 1232	BRL		ug/Kg	3,900
53469-21-9	Aroclor 1242	BRL		ug/Kg	3,900
12672-29-6	Aroclor 1248	**9,500**	1C (9300)*	ug/Kg	3,900
11097-69-1	Aroclor 1254	BRL		ug/Kg	3,900
11096-82-5	Aroclor 1260	BRL		ug/Kg	3,900
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	3,900
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	3,900

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	130	56	**43 %**	30 - 150 %
	Decachlorobiphenyl	130	57	**44 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	130	60	**46 %**	30 - 150 %
	Decachlorobiphenyl	130	73	**56 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112209**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-34**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**4.4 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 03:00**	Dilution Factor:	**20000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,400,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,400,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,400,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,400,000
12672-29-6	Aroclor 1248	**15,000,000**	1C (12000000)*	ug/Kg	5,400,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	5,400,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,400,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,400,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,400,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	45	n/a	d	30 - 150 %
	Decachlorobiphenyl	45	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	45	n/a	d	30 - 150 %
	Decachlorobiphenyl	45	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112210**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-35**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.8 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 03:23**	Dilution Factor:	**20000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	8,700,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	8,700,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	8,700,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	8,700,000
12672-29-6	Aroclor 1248	**21,000,000**	1C (17000000)*	ug/Kg	8,700,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	8,700,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	8,700,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	8,700,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	8,700,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	72	n/a	d	30 - 150 %
	Decachlorobiphenyl	72	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	72	n/a	d	30 - 150 %
	Decachlorobiphenyl	72	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

\+ Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112211**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-36**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**12 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 03:47**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	4,800,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	4,800,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	4,800,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	4,800,000
12672-29-6	Aroclor 1248	**16,000,000**	1C (14000000)*	ug/Kg	4,800,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	4,800,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	4,800,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	4,800,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	4,800,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	16	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	16	n/a	d	30 - 150 %
Second	Tetrachloro-*m*-xylene	16	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	16	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112212**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-37**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**10 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 04:10**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,900,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,900,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,900,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,900,000
12672-29-6	Aroclor 1248	**17,000,000**	1C (14000000)*	ug/Kg	5,900,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	5,900,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,900,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,900,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,900,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	20	n/a	d	30 - 150 %
	Decachlorobiphenyl	20	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	20	n/a	d	30 - 150 %
	Decachlorobiphenyl	20	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112213**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-38**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**7.6 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 04:34**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	7,900,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	7,900,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	7,900,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	7,900,000
12672-29-6	Aroclor 1248	**9,900,000**	1C (8100000)*	ug/Kg	7,900,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	7,900,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	7,900,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	7,900,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	7,900,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	26	n/a	d	30 - 150 %
	Decachlorobiphenyl	26	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	26	n/a	d	30 - 150 %
	Decachlorobiphenyl	26	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112214**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-39**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.4 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 15:58**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	500
11104-28-2	Aroclor 1221	BRL		ug/Kg	500
11141-16-5	Aroclor 1232	BRL		ug/Kg	500
53469-21-9	Aroclor 1242	BRL		ug/Kg	500
12672-29-6	Aroclor 1248	**4,400**	1C (2900)*	ug/Kg	500
11097-69-1	Aroclor 1254	BRL		ug/Kg	500
11096-82-5	Aroclor 1260	BRL		ug/Kg	500
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	500
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	500

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	82	61	**74** %	30 - 150 %
Column	Decachlorobiphenyl	82	87	**105** %	30 - 150 %
Second	Tetrachloro-*m*-xylene	82	57	**69** %	30 - 150 %
Column	Decachlorobiphenyl	82	84	**102** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112215**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-40**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**0.32 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 16:21**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	3,800
11104-28-2	Aroclor 1221	BRL		ug/Kg	3,800
11141-16-5	Aroclor 1232	BRL		ug/Kg	3,800
53469-21-9	Aroclor 1242	BRL		ug/Kg	3,800
12672-29-6	Aroclor 1248	**7,400**	2C (6100)*	ug/Kg	3,800
11097-69-1	Aroclor 1254	BRL		ug/Kg	3,800
11096-82-5	Aroclor 1260	BRL		ug/Kg	3,800
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	3,800
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	3,800

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	620	480	**76 %**	30 - 150 %
	Decachlorobiphenyl	620	810	**131 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	620	470	**75 %**	30 - 150 %
	Decachlorobiphenyl	620	680	**108 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112216**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-41**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 18:42**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	240
11104-28-2	Aroclor 1221	BRL		ug/Kg	240
11141-16-5	Aroclor 1232	BRL		ug/Kg	240
53469-21-9	Aroclor 1242	BRL		ug/Kg	240
12672-29-6	Aroclor 1248	**360**	1C (290)*	ug/Kg	240
11097-69-1	Aroclor 1254	**620**	1C (550)*	ug/Kg	240
11096-82-5	Aroclor 1260	BRL		ug/Kg	240
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	240
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	240

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	40	18	**45 %**	30 - 150 %
Column	Decachlorobiphenyl	40	34	**85 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	40	16	**40 %**	30 - 150 %
Column	Decachlorobiphenyl	40	34	**85 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112217**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-42**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**4.2 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 19:06**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	280
11104-28-2	Aroclor 1221	BRL		ug/Kg	280
11141-16-5	Aroclor 1232	BRL		ug/Kg	280
53469-21-9	Aroclor 1242	BRL		ug/Kg	280
12672-29-6	Aroclor 1248	**880**	1C (610)*	ug/Kg	280
11097-69-1	Aroclor 1254	BRL		ug/Kg	280
11096-82-5	Aroclor 1260	BRL		ug/Kg	280
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	280
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	280

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	47	21	**44 %**	30 - 150 %
	Decachlorobiphenyl	47	23	**49 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	47	18	**38 %**	30 - 150 %
	Decachlorobiphenyl	47	19	**40 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112218**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-43**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**9.6 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 10:27**	Dilution Factor:	**200**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	25,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	25,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	25,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	25,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	25,000
11097-69-1	Aroclor 1254	**190,000**	2C (170000)	ug/Kg	25,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	25,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	25,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	25,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	21	n/a	d	30 - 150 %
	Decachlorobiphenyl	21	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	21	n/a	d	30 - 150 %
	Decachlorobiphenyl	21	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112219**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-44**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 10:51**	Dilution Factor:	**1000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	590,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	590,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	590,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	590,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	590,000
11097-69-1	Aroclor 1254	**4,000,000**	2C (3600000)*	ug/Kg	590,000
11096-82-5	Aroclor 1260	**2,000,000**	2C (1200000)*	ug/Kg	590,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	590,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	590,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	99	n/a	d	30 - 150 %
	Decachlorobiphenyl	99	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	99	n/a	d	30 - 150 %
	Decachlorobiphenyl	99	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112220**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-45**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.2 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 11:14**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,900
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,900
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,900
53469-21-9	Aroclor 1242	BRL		ug/Kg	1,900
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,900
11097-69-1	Aroclor 1254	**6,800**	2C (5600)*	ug/Kg	1,900
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,900
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	1,900
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	1,900

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	62	39	**62 %**	30 - 150 %
Column	Decachlorobiphenyl	62	48	**77 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	62	39	**62 %**	30 - 150 %
Column	Decachlorobiphenyl	62	76	**122 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112221**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-46**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.6 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 16:45**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	470
11104-28-2	Aroclor 1221	BRL		ug/Kg	470
11141-16-5	Aroclor 1232	BRL		ug/Kg	470
53469-21-9	Aroclor 1242	BRL		ug/Kg	470
12672-29-6	Aroclor 1248	BRL		ug/Kg	470
11097-69-1	Aroclor 1254	**2,900**	1C (2600)*	ug/Kg	470
11096-82-5	Aroclor 1260	BRL		ug/Kg	470
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	470
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	470

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	78	30	**39** %	30 - 150 %
	Decachlorobiphenyl	78	63	**82** %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	78	26	**33** %	30 - 150 %
	Decachlorobiphenyl	78	59	**76** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112222**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-47**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**26 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 12:49**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	460
11104-28-2	Aroclor 1221	BRL		ug/Kg	460
11141-16-5	Aroclor 1232	BRL		ug/Kg	460
53469-21-9	Aroclor 1242	BRL		ug/Kg	460
12672-29-6	Aroclor 1248	**1,600**	1C (1500)*	ug/Kg	460
11097-69-1	Aroclor 1254	BRL		ug/Kg	460
11096-82-5	Aroclor 1260	BRL		ug/Kg	460
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	460
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	460

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	8	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	8	n/a	d	30 - 150 %
Second	Tetrachloro-*m*-xylene	8	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	8	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

Project Narrative

Project:	**17228**	Lab ID:	**134157**
Client:	**Environmental Health & Engineering, Inc.**	Received:	**06-21-10 19:40**

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. EPA 8082 Non-conformance: Samples 134157-2 through -5, -6RA1, -9 through -13, -16, -21, -25, -26, -27, -29, -30, -34 through -38, -43 and -44. Samples did not have measureable surrogate recoveries due to required sample dilution.
2. EPA 8082 Non-conformance: Samples 134157-6 and -7. Reported results for selected analytes exceeded the high standard of the associated calibration curve. Results are estimated. Samples were reanalyzed and reported with all analytes within calibration.
3. EPA 8082 Note: Samples 134157-1 through -17, -21, -22, -25, -26, -27, -29, -30, -32 through -38, -43, -44, -45, -47, -6RA1 and -7RA1. Samples were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
4. Samples 134157-1 through -47 were not received with sample collection times listed on the Chain of Custody. Samples were reported with a sampling collection time of 00:00 by the laboratory.
5. EPA 8082 Non-conformance: Laboratory control sample (LCS) analytes Aroclor 1260 and Aroclor 1016 were outside recommended recovery limits for QC batch PB-3491-X
6. EPA 8082 Non-conformance: Laboratory control sample (LCS) analyte Aroclor 1260 had an RPD recovery outside recommended recovery limits for QC batch PB-3491-X
7. EPA 8082 Non-conformance: Sample 134157-28. Sample had a surrogate recovery below recommended recovery limits due to sample matrix interference. No additional sample was available for reanalysis.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 6/21/10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: GWA

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 17228

The cost of this analysis will be covered by EH&E Purchase Order # 17228

For EH & E Data Coordinator - URGENT DATA ☒

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
112176	Bulk	PCBs EPA 8082	
112177	↓	↓	
112178			
112179			
112180			
112181			
112182			
112183			
112184			
112185			
112186			
112187			
112188			
112189			
112190	↓	↓	

Special instructions:

☐ Standard turn around time ☒ Rush by 6/30/2010 date/time ☐ Other

☐ Fax results 781-247-4305

5.2°C ☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient mfraga@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 6/21/10

Received by: Alan Maddigan of (company name) Groundwater A. Date: 6/21/10

Relinquished by: Alan Maddigan of (company name) Groundwater A. Date: 6/21/10

Received by: _____ of (company name) Groundwater A Date: 6/21/10

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 1

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 6/21/10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: GWA

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 17228

The cost of this analysis will be covered by EH&E Purchase Order # 17228

For EH & E Data Coordinator - URGENT DATA ☒

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
112191	Bulk	PCBs EPA 8082	
112192			
112193			
112194			
112195			
112196			
112197			
112198			
112199			
12200			
112201			
112202			
112203			
112204			
112205			
112206			

Special instructions:

☐ Standard turn around time ☒ Rush by 6/30/10 date/time ☐ Other

5.2°C

☐ Fax results 781-247-4305
☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com
☒ Additional report recipient mfragala@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: [signature] of Environmental Health & Engineering, Inc. Date: 6/21/10

Received by: Alan Maddigan of (company name) Groundwater A. Date: 6/21/10

Relinquished by: Alan Maddigan of (company name) Groundwater A. Date: 6/21/10

Received by: [signature] of (company name) Eastlake Mt. Date: 6/21/10 1940

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 1

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 6/21/10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: GWA

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 17228

The cost of this analysis will be covered by EH&E Purchase Order # 17228

For EH & E Data Coordinator - URGENT DATA ☒

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
112207	Bulk	EPA 8082 PCBs	
112208			
112209			
112210			
112211			
112212			
112213			
112214			
112215			
112216			
112217			
112218			
112219			
112220			
112221			
112222			

Special instructions:

☐ Standard turn around time ☒ Rush by 6/30/10 date/time ☐ Other

☐ Fax results 781-247-4305

5.2°C ☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient mfraggola@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 6/21/10

Received by: Alan Maddigan of (company name) Groundwater a Date: 6/21/10

Relinquished by: Alan Maddigan of (company name) Groundwater a Date: 6/21/10

Received by: _____ of (company name) Groundwater A Date: 6/24/10

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans,* US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste,* US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	**EPA 8082**	Instrument ID:	**GC-11 Agilent 6890**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3468-X**	Extracted:	**06-22-10 19:00**	Extracted:	**06-22-10 19:00**
Matrix:	**Soil**	Cleaned Up:	**06-23-10 01:30**	Cleaned Up:	**06-23-10 01:30**
Units:	**ug/Kg**	Analyzed:	**06-25-10 04:10**	Analyzed:	**06-25-10 04:34**
		Analyst:	**CRL**	Analyst:	**CRL**

CAS Number	Analyte	LCS					LCS Duplicate							QC Limits	
		Spiked	Measured		Recovery		Spiked	Measured		Recovery		RPD			
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	130	150	**81%**	**91%**	170	170	190	**101%**	**113%**	**22 %**	**22 %**	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	190	200	**113%**	**119%**	170	200	210	**120%**	**126%**	**6 %**	**6 %**	40 - 140%	30 %

QC Surrogate Compound	Surrogate Recovery											QC Limits
Tetrachloro-*m*-xylene	6.7	4.1	3.9	**62%**	**59%**	6.7	5.4	5.4	**81%**	**81%**		30 - 150 %
Decachlorobiphenyl	6.7	8.8	9.6	**133%**	**144%**	6.7	9.1	9.9	**137%**	**149%**		30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	**EPA Method 8082**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3468-X**	Extracted:	**06-22-10 19:00**
Matrix:	**Soil**	Cleaned Up:	**06-23-10 01:30**
		Analyzed:	**06-25-10 03:47**
		Analyst:	**CRL**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	6.7	4.8	**73 %**	30 - 150 %
	Decachlorobiphenyl	6.7	8.6	**129 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	6.7	5.2	**78 %**	30 - 150 %
	Decachlorobiphenyl	6.7	9.5	**143 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	**EPA 8082**	Instrument ID:	**GC-11 Agilent 6890**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3485-X**	Extracted:	**06-30-10 00:30**	Extracted:	**06-30-10 00:30**
Matrix:	**Soil**	Cleaned Up:	**07-01-10 21:30**	Cleaned Up:	**07-01-10 21:30**
Units:	**ug/Kg**	Analyzed:	**07-06-10 13:07**	Analyzed:	**07-06-10 13:31**
		Analyst:	**CRL**	Analyst:	**CRL**

CAS Number	Analyte	LCS					LCS Duplicate							QC Limits	
		Spiked	Measured		Recovery		Spiked	Measured		Recovery		RPD			
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	130	130	78%	79%	170	140	140	85%	83%	9 %	6 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	140	150	87%	89%	170	150	150	88%	90%	2 %	1 %	40 - 140%	30 %

QC Surrogate Compound	Surrogate Recovery										QC Limits
Tetrachloro-*m*-xylene	6.7	4.4	4.4	67%	66%	6.7	4.8	4.6	73%	69%	30 - 150 %
Decachlorobiphenyl	6.7	6.1	6.8	92%	102%	6.7	6.2	6.9	94%	104%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	**EPA Method 8082**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3485-X**	Extracted:	**06-30-10 00:30**
Matrix:	**Soil**	Cleaned Up:	**07-01-10 21:30**
		Analyzed:	**07-06-10 12:33**
		Analyst:	**CRL**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	6.7	4.7	**71 %**	30 - 150 %
	Decachlorobiphenyl	6.7	6.3	**95 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	6.7	4.5	**67 %**	30 - 150 %
	Decachlorobiphenyl	6.7	6.8	**102 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	**EPA 8082**	Instrument ID:	**GC-11 Agilent 6890**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3491-X**	Extracted:	**07-01-10 20:00**	Extracted:	**07-01-10 20:00**
Matrix:	**Soil**	Cleaned Up:	**07-03-10 14:00**	Cleaned Up:	**07-03-10 14:00**
Units:	**ug/Kg**	Analyzed:	**07-06-10 14:18**	Analyzed:	**07-06-10 14:41**
		Analyst:	**CRL**	Analyst:	**CRL**

CAS Number	Analyte	LCS					LCS Duplicate							QC Limits	
		Spiked	Measured		Recovery		Spiked	Measured		Recovery		RPD			
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	70	71	42%	43%	170	61	62	37% q	37% q	14 %	14 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	230	290	141% q	175% q	170	130	140	80%	86%	55 % q	68 % q	40 - 140%	30 %

QC Surrogate Compound	Surrogate Recovery										QC Limits
Tetrachloro-*m*-xylene	6.7	4.3	4.1	65%	62%	6.7	4.6	4.4	69%	66%	30 - 150 %
Decachlorobiphenyl	6.7	8.1	6.7	121%	101%	6.7	6.9	7.1	104%	107%	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

q Recovery outside recommended limits.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	**EPA Method 8082**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3491-X**	Extracted:	**07-01-10 20:00**
Matrix:	**Soil**	Cleaned Up:	**07-03-10 14:00**
		Analyzed:	**07-06-10 13:54**
		Analyst:	**CRL**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	80
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	6.7	4.8	**72** %	30 - 150 %
	Decachlorobiphenyl	6.7	5.9	**89** %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	6.7	4.6	**69** %	30 - 150 %
	Decachlorobiphenyl	6.7	5.8	**88** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

GROUNDWATER ANALYTICAL

Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states.
Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT

Department of Health Services, PH-0586 — Potable Water, Wastewater, Solid Waste and Soil
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/Out_State.pdf

MASSACHUSETTS

Department of Environmental Protection, M-MA-103 — Potable Water and Non-Potable Water
http://public.dep.state.ma.us/labcert/labcert.aspx

Department of Labor,
Division of Occupational Safety, AA000195 — Asbestos Analytical Services, Class A
http://www.mass.gov/dos/forms/la-rpt_list_aa.pdf

NEW HAMPSHIRE

Department of Environmental Services, 202708 — Potable Water, Non-Potable Water, Solid and Chemical Materials
http://www4.egov.nh.gov/DES/NHELAP

NEW YORK

Department of Health, 11754 — Potable Water, Non-Potable Water, Solid and Hazardous Waste
http://www.wadsworth.org/labcert/elap/comm.html

RHODE ISLAND

Department of Health,
Division of Laboratories, LAO00054 — Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry
http://www.health.ri.gov/labs/outofstatelabs.pdf

U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921 — Foreign soil import permit

VERMONT

Department of Health, VT-87643 — Potable Water
http://healthvermont.gov/enviro/ph_lab/water_test.aspx#cert

GROUNDWATER ANALYTICAL

Certifications and Approvals

MASSACHUSETTS — **Department of Environmental Protection, M-MA-103**

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Potable Water (Drinking Water)

Analyte	Method
1,2-Dibromo-3-Chloropropane	EPA 504.1
1,2-Dibromoethane	EPA 504.1
Alkalinity, Total	SM 2320-B
Antimony	EPA 200.8
Arsenic	EPA 200.8
Barium	EPA 200.7
Barium	EPA 200.8
Beryllium	EPA 200.7
Beryllium	EPA 200.8
Cadmium	EPA 200.7
Cadmium	EPA 200.8
Calcium	EPA 200.7
Chlorine, Residual Free	SM 4500-CL-G
Chromium	EPA 200.7
Copper	EPA 200.7
Copper	EPA 200.8
Cyanide, Total	Lachat 10-204-00-1-A
E. Coli (Treatment and Distribution)	Enz. Sub. SM 9223
E. Coli (Treatment and Distribution)	NA-MUG SM 9222-G
Fecal Coliform (Source Water)	MF SM 9222-D
Fluoride	EPA 300.0
Fluoride	SM 4500-F-C
Heterotrophic Plate Count	SM 9215-B
Lead	EPA 200.8
Mercury	EPA 245.1
Nickel	EPA 200.7
Nickel	EPA 200.8
Nitrate-N	EPA 300.0
Nitrate-N	Lachat 10-107-04-1-C
Nitrite-N	EPA 300.0
Nitrite-N	Lachat 10-107-04-1-C
pH	SM 4500-H-B
Selenium	EPA 200.8
Silver	EPA 200.7
Silver	EPA 200.8
Sodium	EPA 200.7
Sulfate	EPA 300.0
Thallium	EPA 200.8
Total Coliform (Treatment and Distribution)	Enz. Sub. SM 9223
Total Coliform (Treatment and Distribution)	MF SM 9222-B
Total Dissolved Solids	SM 2540-C
Trihalomethanes	EPA 524.2
Turbidity	SM 2130-B
Volatile Organic Compounds	EPA 524.2

Non-Potable Water (Wastewater)

Analyte	Method
Aldrin	EPA 608
Alkalinity, Total	SM 2320-B
Alpha-BHC	EPA 608
Aluminum	EPA 200.7
Ammonia-N	Lachat 10-107-06-1-B

Non-Potable Water (Wastewater)

Analyte	Method
Antimony	EPA 200.7
Antimony	EPA 200.8
Arsenic	EPA 200.7
Arsenic	EPA 200.8
Beryllium	EPA 200.7
Beryllium	EPA 200.8
Beta-BHC	EPA 608
Biochemical Oxygen Demand	SM 5210-B
Cadmium	EPA 200.7
Cadmium	EPA 200.8
Calcium	EPA 200.7
Chemical Oxygen Demand	SM 5220-D
Chlordane	EPA 608
Chloride	EPA 300.0
Chlorine, Total Residual	SM 4500-CL-G
Chromium	EPA 200.7
Chromium	EPA 200.8
Cobalt	EPA 200.7
Cobalt	EPA 200.8
Copper	EPA 200.7
Copper	EPA 200.8
Cyanide, Total	Lachat 10-204-00-1-A
DDD	EPA 608
DDE	EPA 608
DDT	EPA 608
Delta-BHC	EPA 608
Dieldrin	EPA 608
Endosulfan I	EPA 608
Endosulfan II	EPA 608
Endosulfan Sulfate	EPA 608
Endrin	EPA 608
Endrin Aldehyde	EPA 608
Fluoride	EPA 300.0
Gamma-BHC	EPA 608
Hardness (CaCO3), Total	EPA 200.7
Hardness (CaCO3), Total	SM 2340-B
Heptachlor	EPA 608
Heptachlor Epoxide	EPA 608
Iron	EPA 200.7
Kjeldahl-N	Lachat 10-107-06-02-D
Lead	EPA 200.7
Magnesium	EPA 200.7
Manganese	EPA 200.7
Manganese	EPA 200.8
Mercury	EPA 245.1
Molybdenum	EPA 200.7
Molybdenum	EPA 200.8
Nickel	EPA 200.7
Nickel	EPA 200.8
Nitrate-N	EPA 300.0
Nitrate-N	Lachat 10-107-04-1-C
Non-Filterable Residue	SM 2540-D
Oil and Grease	EPA 1664

GROUNDWATER ANALYTICAL

Certifications and Approvals

MASSACHUSETTS	Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Non-Potable Water (Wastewater)

Analyte	Method
Orthophosphate	Lachat 10-115-01-1-A
pH	SM 4500-H-B
Phenolics, Total	EPA 420.4
Phenolics, Total	Lachat 10-210-00-1-B
Phosphorus, Total	Lachat 10-115-01-1-C
Phosphorus, Total	SM 4500-P-B,E
Polychlorinated Biphenyls (Oil)	EPA 600/4-81-045
Polychlorinated Biphenyls (Water)	EPA 608
Potassium	EPA 200.7
Selenium	EPA 200.7
Selenium	EPA 200.8
Silver	EPA 200.7
Sodium	EPA 200.7
Specific Conductivity	SM 2510-B
Strontium	EPA 200.7
Sulfate	EPA 300.0
SVOC-Acid Extractables	EPA 625
SVOC-Base/Neutral Extractables	EPA 625
Thallium	EPA 200.7
Thallium	EPA 200.8
Titanium	EPA 200.7
Total Dissolved Solids	SM 2540-C
Total Organic Carbon	SM 5310-B
Toxaphene	EPA 608
Vanadium	EPA 200.7
Vanadium	EPA 200.8
Volatile Aromatics	EPA 602
Volatile Aromatics	EPA 624
Volatile Halocarbons	EPA 624
Zinc	EPA 200.7
Zinc	EPA 200.8

GROUNDWATER ANALYTICAL

Groundwater Analytical, Inc.
P.O. Box 1200
228 Main Street
Buzzards Bay, MA 02532

Telephone (508) 759-4441
FAX (508) 759-4475
www.groundwateranalytical.com

August 18, 2010

Mr. Todd Megrath
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

LABORATORY REPORT

Project: **17228**
Lab ID: **135433**
Received: **08-11-10**

Dear Todd:

Enclosed are the analytical results for the above referenced project. The project was processed for Priority turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC or NVLAP standards, except as may be specifically noted, or described in the project narrative. The analytical results relate only to the samples received. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jensen
Operations Manager

EHJ/elm
Enclosures

GROUNDWATER ANALYTICAL

Sample Receipt Report

Project: **17228** | Delivery: **Hand** | Temperature: **n/a**
Client: **Environmental Health & Engineering, Inc.** | Airbill: **n/a** | Chain of Custody: **Present**
Lab ID: **135433** | Lab Receipt: **08-11-10** | Custody Seal(s): **n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-1	113725		Solid	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-2	113726		Solid	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-3	113727		Solid	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-4	113728		Solid	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-5	113729		Solid	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-6	113730		Solid	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-7	113731		Solid	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-8	113732		Solid	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-9	113733		Solid	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-10	113734		Soil	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-11	113735		Soil	8/10/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

GROUNDWATER ANALYTICAL

Sample Receipt Report (Continued)

Project: **17228**
Client: **Environmental Health & Engineering, Inc.**
Lab ID: **135433**

Delivery: **Hand**
Airbill: **n/a**
Lab Receipt: **08-11-10**

Temperature: **n/a**
Chain of Custody: **Present**
Custody Seal(s): **n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-12	113736		Soil	8/10/10 0:00	EPA 8082 PCBs				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-13	113737		Soil	8/10/10 0:00	EPA 8082 PCBs				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-14	113738		Soil	8/10/10 0:00	EPA 8082 PCBs				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

GROUNDWATER ANALYTICAL

Data Certification

Project: **17228** Lab ID: **135433**
Client: **Environmental Health & Engineering, Inc.** Received: **08-11-10 18:05**

Mass DEP Analytical Protocol Certification Form					
Project Location: **n/a**				MA DEP RTN: **n/a**	
This Form provides certifications for the following data set:					
EPA 8082: 135433-1,-2,-3,-4,-5,-6,-7,-8,-9,-10,-11,-12,-13,-14					
Sample Matrices: Groundwater/Surface ( ) Soil/Sediment (X) Drinking Water ( ) Air ( ) Other (X)					
CAM Protocol (check all that apply below):					
8260 VOC CAM II A ( )	7470/7471 Hg CAM III B ( )	Mass DEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	Mass DEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	Mass DEP EPH CAM IV B ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9012 Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

An affirmative response to questions A through F are required for "Presumptive Certainty" status.		
A.	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratoratory, and prepared/analyzed within method holding times?	Yes
B.	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes
C.	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	Yes
D.	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes
E.	VPH, EPH and APH methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	n/a
F.	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes
Responses to questions G, H and I below are required for "Presumptive Certainty" status.		
G.	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	No
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40.1056(2)(k) and WSC-07-350.		
H.	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes
I.	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes
All negative responses must be addressed in an attached laboratory narrative.		

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Operations Manager

Printed Name: Eric H. Jensen Date: 08-18-10

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113725**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-1**	QC Batch ID:	**PB-3546-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**1.4 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**n/a**
Analyzed:	**08-14-10 23:36**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	850
11104-28-2	Aroclor 1221	BRL		ug/Kg	850
11141-16-5	Aroclor 1232	BRL		ug/Kg	850
53469-21-9	Aroclor 1242	BRL		ug/Kg	850
12672-29-6	Aroclor 1248	BRL		ug/Kg	850
11097-69-1	Aroclor 1254	**890**	2C (780)*	ug/Kg	850
11096-82-5	Aroclor 1260	BRL		ug/Kg	850
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	850
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	850

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	140	53	**37 %**	30 - 150 %
	Decachlorobiphenyl	140	59	**42 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	140	55	**39 %**	30 - 150 %
	Decachlorobiphenyl	140	56	**40 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113726**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-2**	QC Batch ID:	**PB-3546-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**3.7 g**
Extracted:	**08-12-10 17:00**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**n/a**
Analyzed:	**08-16-10 12:28**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	320
11104-28-2	Aroclor 1221	BRL		ug/Kg	320
11141-16-5	Aroclor 1232	BRL		ug/Kg	320
53469-21-9	Aroclor 1242	BRL		ug/Kg	320
12672-29-6	Aroclor 1248	**1,500**	1C (1300)*	ug/Kg	320
11097-69-1	Aroclor 1254	BRL		ug/Kg	320
11096-82-5	Aroclor 1260	BRL		ug/Kg	320
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	320
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	320

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	54	24	**44 %**	30 - 150 %
Column	Decachlorobiphenyl	54	52	**97 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	54	20	**37 %**	30 - 150 %
Column	Decachlorobiphenyl	54	35	**65 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113727**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-3**	QC Batch ID:	**PB-3546-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**9.6 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**n/a**
Analyzed:	**08-14-10 20:51**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,300
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,300
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,300
53469-21-9	Aroclor 1242	BRL		ug/Kg	1,300
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,300
11097-69-1	Aroclor 1254	**2,600**	2C (2400)*	ug/Kg	1,300
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,300
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	1,300
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	1,300

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	21	11	**54 %**	30 - 150 %
	Decachlorobiphenyl	21	12	**57 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	21	8	**40 %**	30 - 150 %
	Decachlorobiphenyl	21	12	**60 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113728**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-4**	QC Batch ID:	**PB-3546-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**0.46 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**n/a**
Analyzed:	**08-14-10 21:14**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	26,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	26,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	26,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	26,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	26,000
11097-69-1	Aroclor 1254	**150,000**	2C (120000)*	ug/Kg	26,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	26,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	26,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	26,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	430	270	**62** %	30 - 150 %
	Decachlorobiphenyl	430	260	**61** %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	430	260	**61** %	30 - 150 %
	Decachlorobiphenyl	430	260	**60** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113729**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-5**	QC Batch ID:	**PB-3546-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**25 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**n/a**
Analyzed:	**08-14-10 23:59**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	49
11104-28-2	Aroclor 1221	BRL		ug/Kg	49
11141-16-5	Aroclor 1232	BRL		ug/Kg	49
53469-21-9	Aroclor 1242	BRL		ug/Kg	49
12672-29-6	Aroclor 1248	**530**	2C (460)*	ug/Kg	49
11097-69-1	Aroclor 1254	BRL		ug/Kg	49
11096-82-5	Aroclor 1260	BRL		ug/Kg	49
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	49
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	49

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	8	6	**73** %	30 - 150 %
	Decachlorobiphenyl	8	10	**126** %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	8	7	**88** %	30 - 150 %
	Decachlorobiphenyl	8	9	**114** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113730**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-6**	QC Batch ID:	**PB-3546-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**24 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**n/a**
Analyzed:	**08-15-10 00:22**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	50
11104-28-2	Aroclor 1221	BRL		ug/Kg	50
11141-16-5	Aroclor 1232	BRL		ug/Kg	50
53469-21-9	Aroclor 1242	BRL		ug/Kg	50
12672-29-6	Aroclor 1248	**80**	2C (80)*	ug/Kg	50
11097-69-1	Aroclor 1254	BRL		ug/Kg	50
11096-82-5	Aroclor 1260	BRL		ug/Kg	50
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	50
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	50

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	8	6	**67 %**	30 - 150 %
	Decachlorobiphenyl	8	8	**100 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	8	7	**80 %**	30 - 150 %
	Decachlorobiphenyl	8	8	**91 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113731**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-7**	QC Batch ID:	**PB-3546-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**23 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**n/a**
Analyzed:	**08-14-10 21:38**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	510
11104-28-2	Aroclor 1221	BRL		ug/Kg	510
11141-16-5	Aroclor 1232	BRL		ug/Kg	510
53469-21-9	Aroclor 1242	BRL		ug/Kg	510
12672-29-6	Aroclor 1248	**4,000**	p 2C (2000)*	ug/Kg	510
11097-69-1	Aroclor 1254	BRL		ug/Kg	510
11096-82-5	Aroclor 1260	BRL		ug/Kg	510
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	510
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	510

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	9	5	**56 %**	30 - 150 %
	Decachlorobiphenyl	9	11	**127 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	9	7	**81 %**	30 - 150 %
	Decachlorobiphenyl	9	10	**120 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

p Greater than 40% difference between the detected concentrations on the two GC columns.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113732**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-8**	QC Batch ID:	**PB-3546-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**13 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**n/a**
Analyzed:	**08-15-10 00:46**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	93
11104-28-2	Aroclor 1221	BRL		ug/Kg	93
11141-16-5	Aroclor 1232	BRL		ug/Kg	93
53469-21-9	Aroclor 1242	BRL		ug/Kg	93
12672-29-6	Aroclor 1248	**130**	2C (110)*	ug/Kg	93
11097-69-1	Aroclor 1254	BRL		ug/Kg	93
11096-82-5	Aroclor 1260	BRL		ug/Kg	93
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	93
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	93

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	15	10	**61** %	30 - 150 %
	Decachlorobiphenyl	15	16	**102** %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	15	11	**73** %	30 - 150 %
	Decachlorobiphenyl	15	15	**94** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113733**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-9**	QC Batch ID:	**PB-3546-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**19 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**n/a**
Analyzed:	**08-15-10 01:09**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	65
11104-28-2	Aroclor 1221	BRL		ug/Kg	65
11141-16-5	Aroclor 1232	BRL		ug/Kg	65
53469-21-9	Aroclor 1242	BRL		ug/Kg	65
12672-29-6	Aroclor 1248	**200**	2C (170)*	ug/Kg	65
11097-69-1	Aroclor 1254	BRL		ug/Kg	65
11096-82-5	Aroclor 1260	BRL		ug/Kg	65
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	65
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	65

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	11	6	**56 %**	30 - 150 %
	Decachlorobiphenyl	11	10	**92 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	11	7	**66 %**	30 - 150 %
	Decachlorobiphenyl	11	10	**90 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113734**	Matrix:	**Soil**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-10**	QC Batch ID:	**PB-3547-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**30 g**
Extracted:	**08-12-10 17:00**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**97**
Analyzed:	**08-14-10 01:25**	Dilution Factor:	**100**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	4,100
11104-28-2	Aroclor 1221	BRL		ug/Kg	4,100
11141-16-5	Aroclor 1232	BRL		ug/Kg	4,100
53469-21-9	Aroclor 1242	BRL		ug/Kg	4,100
12672-29-6	Aroclor 1248	BRL		ug/Kg	4,100
11097-69-1	Aroclor 1254	**7,400**	2C (6300)*	ug/Kg	4,100
11096-82-5	Aroclor 1260	BRL		ug/Kg	4,100
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	4,100
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	4,100

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	7	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	7	n/a	d	30 - 150 %
Second	Tetrachloro-*m*-xylene	7	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	7	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113735**	Matrix:	**Soil**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-11**	QC Batch ID:	**PB-3547-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**30 g**
Extracted:	**08-12-10 17:00**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**99**
Analyzed:	**08-16-10 12:52**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	**120**	1C (100)*	ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	7	5	**69 %**	30 - 150 %
	Decachlorobiphenyl	7	7	**99 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	7	5	**75 %**	30 - 150 %
	Decachlorobiphenyl	7	4	**64 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113736**	Matrix:	**Soil**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-12**	QC Batch ID:	**PB-3547-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**31 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**99**
Analyzed:	**08-15-10 01:33**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	**140**	1C (130)*	ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	7	3	**41 %**	30 - 150 %
Column	Decachlorobiphenyl	7	5	**68 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	7	3	**46 %**	30 - 150 %
Column	Decachlorobiphenyl	7	4	**61 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on a dry weight basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113737**	Matrix:	**Soil**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-13**	QC Batch ID:	**PB-3547-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**31 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**100**
Analyzed:	**08-15-10 02:20**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	**130**	2C (110)*	ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	7	5	**70 %**	30 - 150 %
	Decachlorobiphenyl	7	5	**80 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	7	5	**71 %**	30 - 150 %
	Decachlorobiphenyl	7	5	**83 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on a dry weight basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**113738**	Matrix:	**Soil**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**135433-14**	QC Batch ID:	**PB-3547-X**
Sampled:	**08-10-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**08-11-10 18:05**	Sample Weight:	**30 g**
Extracted:	**08-12-10 10:30**	Final Volume:	**1 mL**
Cleaned Up:	**08-13-10 15:30**	Percent Solids:	**100**
Analyzed:	**08-15-10 02:44**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	**130**	2C (120)*	ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	7	4	**67 %**	30 - 150 %
Column	Decachlorobiphenyl	7	6	**87 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	7	5	**69 %**	30 - 150 %
Column	Decachlorobiphenyl	7	6	**88 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on a dry weight basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

Project Narrative

Project:	**17228**	Lab ID:	**135433**
Client:	**Environmental Health & Engineering, Inc.**	Received:	**08-11-10 18:05**

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. Project 135433 was processed for 5 business day turnaround time, with a due date of 8-18-10, per Todd Megrath, 8-12-10.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. EPA 8082 Non-conformance: Sample 135433-10. Sample did not have measureable surrogate recoveries due to required sample dilution.
2. EPA 8082 Note: Samples 135433-3, -4, -7 and -10. Samples were diluted prior to analysis. Dilution was required to keep all target analytes within calibration. Elevated reporting limits are above the recommended CAM reporting limits for the target analytes.
3. Samples 135433-1 through -14 were not received with sample collection times listed on the Chain of Custody. Samples were reported with a sampling collection time of 00:00 by the laboratory.
4. EPA 8082 Nore: Sample 135433-1. Sample had elevated reporting limits above the recommended CAM reporting limits for the target analytes due to limited sample material.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 11 AUG 10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: GROUNDWATER

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 17228

The cost of this analysis will be covered by EH&E Purchase Order # 17228

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
113725	BULK	EPA 8082 FOR PCBs	8/10/10
113726			
113727			
113728			
113729			
113730			
113731			
113732			
113733			
113734	SOIL	EPA 8082 SOXHLET EXTRACTION	
113735			
113736			
113737			
113738			

Special Instructions:

☒ Standard turn around time ☐ Rush by ______ date/time ☐ Other ______

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES** ☐ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient tmcgrath@eheinc.com, wfragala@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: [illegible] of Environmental Health & Engineering, Inc. Date: 8/11/10

Received by: [illegible] of (company name) Gulf Date: 8/11/10 1111

Relinquished by: [illegible] of (company name) Gulf Date: 8/11/10 1805

Received by: [illegible] of (company name) GWA Date: 8/11/10 1800

Relinquished by: ______ of (company name) ______ Date: ______

Received by: ______ of (company name) ______ Date: ______

Lab Data Received by: ______ of Environmental Health & Engineering, Inc. Date: ______

Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans,* US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste,* US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	**EPA 8082**	Instrument ID:	**GC-11 Agilent 6890**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3546-X**	Extracted:	**08-12-10 17:00**	Extracted:	**08-12-10 17:00**
Matrix:	**Soil**	Cleaned Up:	**08-13-10 15:30**	Cleaned Up:	**08-13-10 15:30**
Units:	**ug/Kg**	Analyzed:	**08-13-10 19:09**	Analyzed:	**08-13-10 19:32**
		Analyst:	**CRL**	Analyst:	**CRL**

CAS Number	Analyte	LCS					LCS Duplicate							QC Limits	
		Spiked	Measured		Recovery		Spiked	Measured		Recovery		RPD			
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	73	73	44%	44%	170	76	78	46%	47%	4 %	6 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	140	140	82%	84%	170	130	140	80%	82%	2 %	2 %	40 - 140%	30 %

QC Surrogate Compound	Surrogate Recovery											QC Limits
Tetrachloro-*m*-xylene	6.7	4.2	4.2	64%	63%	6.7	3.8	3.9	58%	58%		30 - 150 %
Decachlorobiphenyl	6.7	6.6	6.6	100%	100%	6.7	6.3	6.4	95%	96%		30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	**EPA Method 8082**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3546-X**	Extracted:	**08-12-10 17:00**
Matrix:	**Soil**	Cleaned Up:	**08-13-10 15:30**
		Analyzed:	**08-13-10 18:45**
		Analyst:	**CRL**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	6.7	4.2	**63 %**	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.5	**98 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	6.7	4.0	**61 %**	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.6	**99 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	**EPA 8082**	Instrument ID:	**GC-11 Agilent 6890**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3547-X**	Extracted:	**08-12-10 17:00**	Extracted:	**08-12-10 17:00**
Matrix:	**Soil**	Cleaned Up:	**08-13-10 15:30**	Cleaned Up:	**08-13-10 15:30**
Units:	**ug/Kg**	Analyzed:	**08-13-10 17:58**	Analyzed:	**08-13-10 18:22**
		Analyst:	**CRL**	Analyst:	**CRL**

CAS Number	Analyte	LCS					LCS Duplicate							QC Limits	
		Spiked	Measured		Recovery		Spiked	Measured		Recovery		RPD			
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	140	140	85%	84%	170	150	140	88%	87%	3 %	4 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	150	150	88%	89%	170	150	150	91%	91%	3 %	2 %	40 - 140%	30 %

QC Surrogate Compound	Surrogate Recovery											QC Limits
Tetrachloro-*m*-xylene	6.7	4.7	4.4	70%	65%	6.7	4.8	4.6	72%	69%		30 - 150 %
Decachlorobiphenyl	6.7	6.6	6.9	100%	104%	6.7	7.0	6.9	105%	104%		30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	**EPA Method 8082**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3547-X**	Extracted:	**08-12-10 17:00**
Matrix:	**Soil**	Cleaned Up:	**08-13-10 15:30**
		Analyzed:	**08-13-10 17:34**
		Analyst:	**CRL**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	6.7	4.8	72 %	30 - 150 %
	Decachlorobiphenyl	6.7	6.5	98 %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	6.7	4.5	67 %	30 - 150 %
	Decachlorobiphenyl	6.7	6.5	98 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

GROUNDWATER ANALYTICAL

Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states.
Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT

Department of Health Services, PH-0586 — Potable Water, Wastewater, Solid Waste and Soil
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/Out_State.pdf

MASSACHUSETTS

Department of Environmental Protection, M-MA-103 — Potable Water and Non-Potable Water
http://public.dep.state.ma.us/labcert/labcert.aspx

Department of Labor,
Division of Occupational Safety, AA000195 — Asbestos Analytical Services, Class A
http://www.mass.gov/dos/forms/la-rpt_list_aa.pdf

NEW HAMPSHIRE

Department of Environmental Services, 202708 — Potable Water, Non-Potable Water, Solid and Chemical Materials
http://www4.egov.nh.gov/DES/NHELAP

NEW YORK

Department of Health, 11754 — Potable Water, Non-Potable Water, Solid and Hazardous Waste
http://www.wadsworth.org/labcert/elap/comm.html

RHODE ISLAND

Department of Health,
Division of Laboratories, LAO00054 — Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry
http://www.health.ri.gov/labs/outofstatelabs.pdf

U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921 — Foreign soil import permit

VERMONT

Department of Health, VT-87643 — Potable Water
http://healthvermont.gov/enviro/ph_lab/water_test.aspx#cert

GROUNDWATER ANALYTICAL

Certifications and Approvals

MASSACHUSETTS	Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Potable Water (Drinking Water)

Analyte	Method
1,2-Dibromo-3-Chloropropane	EPA 504.1
1,2-Dibromoethane	EPA 504.1
Alkalinity, Total	SM 2320-B
Antimony	EPA 200.8
Arsenic	EPA 200.8
Barium	EPA 200.7
Barium	EPA 200.8
Beryllium	EPA 200.7
Beryllium	EPA 200.8
Cadmium	EPA 200.7
Cadmium	EPA 200.8
Calcium	EPA 200.7
Chlorine, Residual Free	SM 4500-CL-G
Chromium	EPA 200.7
Cyanide, Total	Lachat 10-204-00-1-A
E. Coli (Treatment and Distribution)	Enz. Sub. SM 9223
E. Coli (Treatment and Distribution)	NA-MUG SM 9222-G
Fecal Coliform (Source Water)	MF SM 9222-D
Fluoride	EPA 300.0
Fluoride	SM 4500-F-C
Heterotrophic Plate Count	SM 9215-B
Lead	EPA 200.8
Mercury	EPA 245.1
Nickel	EPA 200.7
Nickel	EPA 200.8
Nitrate-N	EPA 300.0
Nitrate-N	Lachat 10-107-04-1-C
Nitrite-N	EPA 300.0
Nitrite-N	Lachat 10-107-04-1-C
pH	SM 4500-H-B
Selenium	EPA 200.8
Silver	EPA 200.7
Silver	EPA 200.8
Sodium	EPA 200.7
Sulfate	EPA 300.0
Thallium	EPA 200.8
Total Coliform (Treatment and Distribution)	Enz. Sub. SM 9223
Total Coliform (Treatment and Distribution)	MF SM 9222-B
Total Dissolved Solids	SM 2540-C
Trihalomethanes	EPA 524.2
Turbidity	SM 2130-B
Volatile Organic Compounds	EPA 524.2

Non-Potable Water (Wastewater)

Analyte	Method
Aldrin	EPA 608
Alkalinity, Total	SM 2320-B
Alpha-BHC	EPA 608
Aluminum	EPA 200.7
Aluminum	EPA 200.8
Ammonia-N	Lachat 10-107-06-1-B

Non-Potable Water (Wastewater)

Analyte	Method
Antimony	EPA 200.7
Antimony	EPA 200.8
Arsenic	EPA 200.7
Arsenic	EPA 200.8
Beryllium	EPA 200.7
Beryllium	EPA 200.8
Beta-BHC	EPA 608
Biochemical Oxygen Demand	SM 5210-B
Cadmium	EPA 200.7
Cadmium	EPA 200.8
Calcium	EPA 200.7
Chemical Oxygen Demand	SM 5220-D
Chlordane	EPA 608
Chloride	EPA 300.0
Chlorine, Total Residual	SM 4500-CL-G
Chromium	EPA 200.7
Chromium	EPA 200.8
Cobalt	EPA 200.7
Cobalt	EPA 200.8
Copper	EPA 200.7
Copper	EPA 200.8
Cyanide, Total	Lachat 10-204-00-1-A
DDD	EPA 608
DDE	EPA 608
DDT	EPA 608
Delta-BHC	EPA 608
Dieldrin	EPA 608
Endosulfan I	EPA 608
Endosulfan II	EPA 608
Endosulfan Sulfate	EPA 608
Endrin	EPA 608
Endrin Aldehyde	EPA 608
Fluoride	EPA 300.0
Gamma-BHC	EPA 608
Hardness (CaCO3), Total	EPA 200.7
Hardness (CaCO3), Total	SM 2340-B
Heptachlor	EPA 608
Heptachlor Epoxide	EPA 608
Iron	EPA 200.7
Kjeldahl-N	Lachat 10-107-06-02-D
Lead	EPA 200.7
Magnesium	EPA 200.7
Manganese	EPA 200.7
Manganese	EPA 200.8
Mercury	EPA 245.1
Molybdenum	EPA 200.7
Molybdenum	EPA 200.8
Nickel	EPA 200.7
Nickel	EPA 200.8
Nitrate-N	EPA 300.0
Nitrate-N	Lachat 10-107-04-1-C
Non-Filterable Residue	SM 2540-D
Oil and Grease	EPA 1664

GROUNDWATER ANALYTICAL

Certifications and Approvals

MASSACHUSETTS	Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Non-Potable Water (Wastewater)

Analyte	Method
Orthophosphate	Lachat 10-115-01-1-A
pH	SM 4500-H-B
Phenolics, Total	EPA 420.4
Phenolics, Total	Lachat 10-210-00-1-B
Phosphorus, Total	Lachat 10-115-01-1-C
Phosphorus, Total	SM 4500-P-B,E
Polychlorinated Biphenyls (Oil)	EPA 600/4-81-045
Polychlorinated Biphenyls (Water)	EPA 608
Potassium	EPA 200.7
Selenium	EPA 200.7
Selenium	EPA 200.8
Silver	EPA 200.7
Sodium	EPA 200.7
Specific Conductivity	SM 2510-B
Strontium	EPA 200.7
Sulfate	EPA 300.0
SVOC-Acid Extractables	EPA 625
SVOC-Base/Neutral Extractables	EPA 625
Thallium	EPA 200.7
Thallium	EPA 200.8
Titanium	EPA 200.7
Total Dissolved Solids	SM 2540-C
Total Organic Carbon	SM 5310-B
Toxaphene	EPA 608
Vanadium	EPA 200.7
Vanadium	EPA 200.8
Volatile Aromatics	EPA 602
Volatile Aromatics	EPA 624
Volatile Halocarbons	EPA 624
Zinc	EPA 200.7
Zinc	EPA 200.8

APPENDIX D

SELECTED PHOTOGRAPHS

D

APPENDIX D

SELECTED PHOTOGRAPHS

SELECTED PHOTOGRAPHS

Photograph D.1 Typical Caulking Detail

Photograph D.2 Typical Façade Section

ENVIRONMENTAL HEALTH & ENGINEERING

Environmental Health
& Engineering, Inc.

117 Fourth Avenue
Needham, MA
02494-2725
TEL 800-825-5343
FAX 781-247-4305
www.eheinc.com

August 16, 2010

Ms. Kimberly Tisa
PCB Coordinator
U. S. Environmental Protection Agency
Five Post Office Square, Suite 100
Boston, MA 02109-3912

RE: Estabrook Elementary School, Lexington, Massachusetts (EH&E 17228)

Dear Ms. Tisa:

This letter is intended to provide the U.S. Environmental Protection Agency (EPA) information regarding polychlorinated biphenyl (PCB)-contaminated materials that exceed the allowable levels under the federal PCB regulations. Said materials were identified at Estabrook Elementary School located at 117 Grove Street in Lexington, Massachusetts (the School). EH&E is working in conjunction with the Town of Lexington Director of the Board of Health and the Director of Public Facilities. As part of this active investigation, exterior caulking materials have been characterized and air samples have been collected in multiple classrooms in the school.

On behalf of the Town of Lexington we are requesting expedited approval for source removal of 550 linear feet of PCB caulk around windows. This request for a risk based disposal approval is being made under Title 40 Code of Federal Regulations Section 761.61(c) (40 CFR 761 .61(c)) as an interim effort to decrease airborne PCB concentrations in the School prior to re-occupancy in early September, 2010. In order to meet this goal, removal of caulking materials will need to begin on August 19, 2010. It is important to note that the Director of Public Facilities has indicated that the Town of Lexington plans to decommission and replace the Estabrook Elementary School within the next several years, currently estimated for 2014.

NATURE OF PCB CONTAMINATED MATERIAL

Environmental Health & Engineering, Inc. (EH&E) performed a thorough investigation to identify suspect PCB-containing caulking and sealants used throughout portions of the School. EH&E

collected samples in a manner to investigate the installation and application of caulking materials, including an evaluation of any evidence indicating window caulking replacement or repair work. Attachment A provides the locations where the samples were collected. Five unique types of caulking were identified and sampled. One of the five types of caulking contained PCB concentrations between 6,000 and 21,000 parts per million (ppm). Table 1 provides the bulk caulking sample results; the laboratory report is located in Attachment B. Photograph 1 depicts this caulking material and the typical installation detail between the metal window frame and brick façade. Photograph 2 depicts a typical section of the school façade.

Table 1 Bulk Caulking Sample Results for Polychlorinated Biphenyls from Estabrook School, Lexington, Massachusetts, June 16 and 17, 2010

Sample ID	Location (Description)	Aroclor 1248[1,2] (ppm_w)	Notes
112207	Map location 1 (Grey)	7.2	1C(6.6)
112208	Map location 2 (Grey)	9.5	1C(9.3)
112209	Map location 3 (White)	15,000	1C(12,000)
112210	Map location 4 (White)	21,000	1C(17,000)
112211	Map location 5 (White)	16,000	1C(14,000)
112212	Duplicate 112211 (White)	17,000	1C(14,000)
112213	Map location 6 (White)	9,900	1C(8,100)
112214	Map location 7 (Black)	4.4	1C(2.9)
112215	Map location 8 (Clear)	7.4	2C(6.1)
112216	Map location 9 (Grey)	0.36 0.62*	1C(0.29) 1C(0.55)*
112217	Map location 10 (Brown)	0.88	1C(0.61)
112218	Map location 11 (White)	190*	2C(170)*
112219	Map location 12 (White)	4,000* 2,000†	2C(3,600) 2C(1,200)†
112220	Map location 13 (Grey)	6.8*	2C(5.6)*
112221	Map location 14 (Grey)	2.9*	1C(2.6)*
112222	Map location 15 (Grey)	1.6	1C(1.5)

ppm_w parts per million by weight

1 Polychlorinated biphenyl concentration analysis performed by Groundwater Analytical, Inc., using U.S. Environmental Protection Agency (EPA) Method 8082 (GC/ECD).

2 Aroclor 1016, 1221, 1232, 1242, 1254, and 1260 also tested. All results below reporting levels, unless noted.

* Aroclor 1254 tested

† Aroclor 1260 tested

1C: Confirmation concentration reported from first column quantification.
2C: Confirmation concentration reported from second column quantification.

Photograph 1 Typical Caulking Detail

Photograph 2 Typical Façade Section

PROPOSED INTERIM CLEAN UP PLAN

The Town of Lexington is proposing the following interim cleanup standards and activities as part of this source removal project:

- Remove 550 linear feet of PCB containing caulking that is greater than or equal to 50 ppm of PCBs.
- Decontaminate the non-porous metal window frame surface to less than or equal to 10 micrograms per 100 square centimeters (10 µg/100 cm^2).
- Encapsulate the porous brick material with a two-part epoxy encapsulant.
- Dispose of all waste in a Toxic Substances Control Act (TSCA)-approved disposal facility.

Contractors must obtain proper permits and conduct work in compliance with all applicable laws and regulations, including TSCA, the Resource Conservation and Recovery Act, and any other applicable federal, state, and local laws.

Abatement procedures for the work shall consist of the removal of specified PCB-containing materials. Non-porous marble building surfaces will need to be cleaned of specified PCB residues in accordance with the following procedures.

Window Frames

The cleaning process of the window frames shall adhere to the following procedures or equivalent:

- Cut caulking materials away from surfaces using hand tools.

- A wiper (or equivalent) moistened with an organic solvent (e.g., mineral spirits) shall be used to clean the non-porous surfaces of the identified materials, focusing the cleaning on areas where PCB-contaminated caulking, or PCB product contacted the surface. The surface shall be cleaned to the point of no visible contamination.

- Clean up dust and residues with high efficiency particulate air (HEPA) vacuuming and/or wet wiping techniques.

- Ensure that items designated as PCB remediation or bulk product waste are transported to the appropriate disposal dumpster via sealed bags or containers.

- No chutes or other transport methods that may generate fugitive emissions may be used to convey PCB remediation or bulk product waste from the work area.

At these locations, the surface of the metal window frame must achieve the post-abatement criterion of 10 μg/100 cm^2 or less.

Brick Materials

The cleaning process of the identified brick materials shall adhere to the following procedures or equivalent:

- Cut and hand scraping to remove all visible caulking residue from identified surfaces.

- A wiper (or equivalent) moistened with an organic solvent (e.g., mineral spirits) shall be used to clean the surfaces of the identified materials, focusing the cleaning on areas where PCB contaminated caulking, or PCB product contacted the surface. The surface shall be cleaned to the point of no visible contamination.

- The wipers and any solvent wash shall be collected for disposal as PCB remediation waste.

- All solvents must be stored and used in conformance with U.S. Occupational Safety and Health Administration, EPA, and local fire department requirements and guidelines to minimize the hazard associated with the solvent.

- The contractor must specify work practices, procedures, and engineering controls that will be used to minimize entrainment of solvent vapors into the building and to protect workers from elevated exposures to vapors.

- Epoxy coating will be applied to the brick surfaces in contact with the PCB contaminated caulking.

Upon completion of the cleaning, EH&E will conduct visual inspections and confirmatory wipe sampling on top of the cured epoxy to verify the completeness of the cleaning and encapsulation effort.

AIR SAMPLING DATA

Table 2 provides a summary of the air sampling data collected at the School. The laboratory report is provided as Attachment C. Air sampling locations are provided in Attachment A. Results of the air samples collected in the school indicate airborne concentrations that exceed the screening level indoor air values provided by the EPA. These samples were collected under "worst case" conditions with the windows closed, and the central air handling and exhaust systems in the school not running. The unit ventilators were operated in the rooms where sampling was conducted. Room 6 was the only room with no unit ventilator; this room had the highest measured airborne concentration of PCBs. An additional round of air samples was collected on August 13, 2010, with the central air systems running under typical occupancy conditions. This air sampling data will be available on August 20, 2010.

Table 2 Summary of Air Sampling Results for Polychlorinated Biphenyls from the Estabrook School, Lexington, Massachusetts, July 22, 2010

Sample ID	Location	Parameter[1]	Results (ng/m^3)
105529	First floor, room 6	Monochlorobiphenyls	<5
		Dichlorobiphenyls	37.7
		Trichlorobiphenyls	298
		Tetrachlorobiphenyls	282
		Pentachlorobiphenyls	183
		Hexachlorobiphenyls	426
		Heptachlorobiphenyls	466
		Octachlorobiphenyls	105
		Nonachlorobiphenyls	4.9
		Decachlorobiphenyl	<5
		Total Homologs	1800
105530	First floor, room 39C	Monochlorobiphenyls	<5
		Dichlorobiphenyls	7.7
		Trichlorobiphenyls	115
		Tetrachlorobiphenyls	89.4
		Pentachlorobiphenyls	41.2
		Hexachlorobiphenyls	60.3
		Heptachlorobiphenyls	27.8
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	342
105531	Duplicate 105530	Monochlorobiphenyls	<5
		Dichlorobiphenyls	6.9
		Trichlorobiphenyls	107
		Tetrachlorobiphenyls	81.7
		Pentachlorobiphenyls	36.3
		Hexachlorobiphenyls	41.3
		Heptachlorobiphenyls	11.0
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	284
105532	First floor, room 31A	Monochlorobiphenyls	<5
		Dichlorobiphenyls	36.3
		Trichlorobiphenyls	185
		Tetrachlorobiphenyls	124
		Pentachlorobiphenyls	75.0
		Hexachlorobiphenyls	102
		Heptachlorobiphenyls	39.3
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	562

Table 2 Continued

Sample ID	Location	Parameter[1]	Results (ng/m^3)
105533	First floor, room 13	Monochlorobiphenyls	<5
		Dichlorobiphenyls	9.9
		Trichlorobiphenyls	128
		Tetrachlorobiphenyls	94.4
		Pentachlorobiphenyls	39.0
		Hexachlorobiphenyls	37.7
		Heptachlorobiphenyls	9.8
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	319
105534	First floor, room 24	Monochlorobiphenyls	<5
		Dichlorobiphenyls	59.4
		Trichlorobiphenyls	332
		Tetrachlorobiphenyls	119
		Pentachlorobiphenyls	62.6
		Hexachlorobiphenyls	77.8
		Heptachlorobiphenyls	29.9
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	680
105535	First floor, room 5	Monochlorobiphenyls	<5
		Dichlorobiphenyls	15.6
		Trichlorobiphenyls	119
		Tetrachlorobiphenyls	98.7
		Pentachlorobiphenyls	67.2
		Hexachlorobiphenyls	109
		Heptachlorobiphenyls	48.5
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	459
105536	Outdoors	Monochlorobiphenyls	<5
		Dichlorobiphenyls	<5
		Trichlorobiphenyls	<5
		Tetrachlorobiphenyls	<5
		Pentachlorobiphenyls	<5
		Hexachlorobiphenyls	<5
		Heptachlorobiphenyls	<5
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	<5

Table 2 Continued

Sample ID	Location	Parameter[1]	Results (ng/m^3)
95349	Field blank	Monochlorobiphenyls	<5
		Dichlorobiphenyls	<5
		Trichlorobiphenyls	<5
		Tetrachlorobiphenyls	<5
		Pentachlorobiphenyls	<5
		Hexachlorobiphenyls	<5
		Heptachlorobiphenyls	<5
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	<5
95350	First floor, room 1A	Monochlorobiphenyls	<5
		Dichlorobiphenyls	7.5
		Trichlorobiphenyls	62.5
		Tetrachlorobiphenyls	55.3
		Pentachlorobiphenyls	67.0
		Hexachlorobiphenyls	83.3
		Heptachlorobiphenyls	23.6
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	299

ng/m^3 nanograms per cubic meter

[1] PCB concentration analysis performed by Alpha Woods Hole Labs., using U.S. Environmental Protection Agency (EPA) Method 10A (GC/MS-SIM).

* The analyte was analyzed for but not detected at the sample specific level reported.

ONGOING WORK

Field investigation activities are ongoing at the School and include the collection and analysis of soil and window glazing materials. Also and as noted above, a second round of air samples has been collected under normal operating conditions with the ventilation systems configured as if the school was occupied. Additional data will be provided to the EPA as it becomes available. Engineers from EH&E are also working with facilities staff to improve ventilation conditions at the School. If procedures and cleanup standards result in conditions commensurate with EPA guidance (risk-based demonstration) an application as part of 40 CFR 761 .61(c) will be submitted to the EPA.

If you have any questions please feel free to contact either of us at 1-800-TALK EHE (1-800-825-5343).

Sincerely,

Matt A. Fragala, M.S., C.I.H.
Senior Scientist

Joseph G. Allen, D.Sc., M.P.H.
Senior Scientist

Attachment A: Sample Location Figure
Attachment B: Bulk Sample Laboratory Report
Attachment C: Air Sample Laboratory Report

cc: Patrick Goddard, Town of Lexington
Gerard Cody, Town of Lexington

ATTACHMENT A
SAMPLE LOCATION FIGURE

District:	Lexington
School Name:	Estabrook Elementary School
Address:	117 Grove Street Lexington, MA 02420

ENVIRONMENTAL HEALTH & ENGINEERING

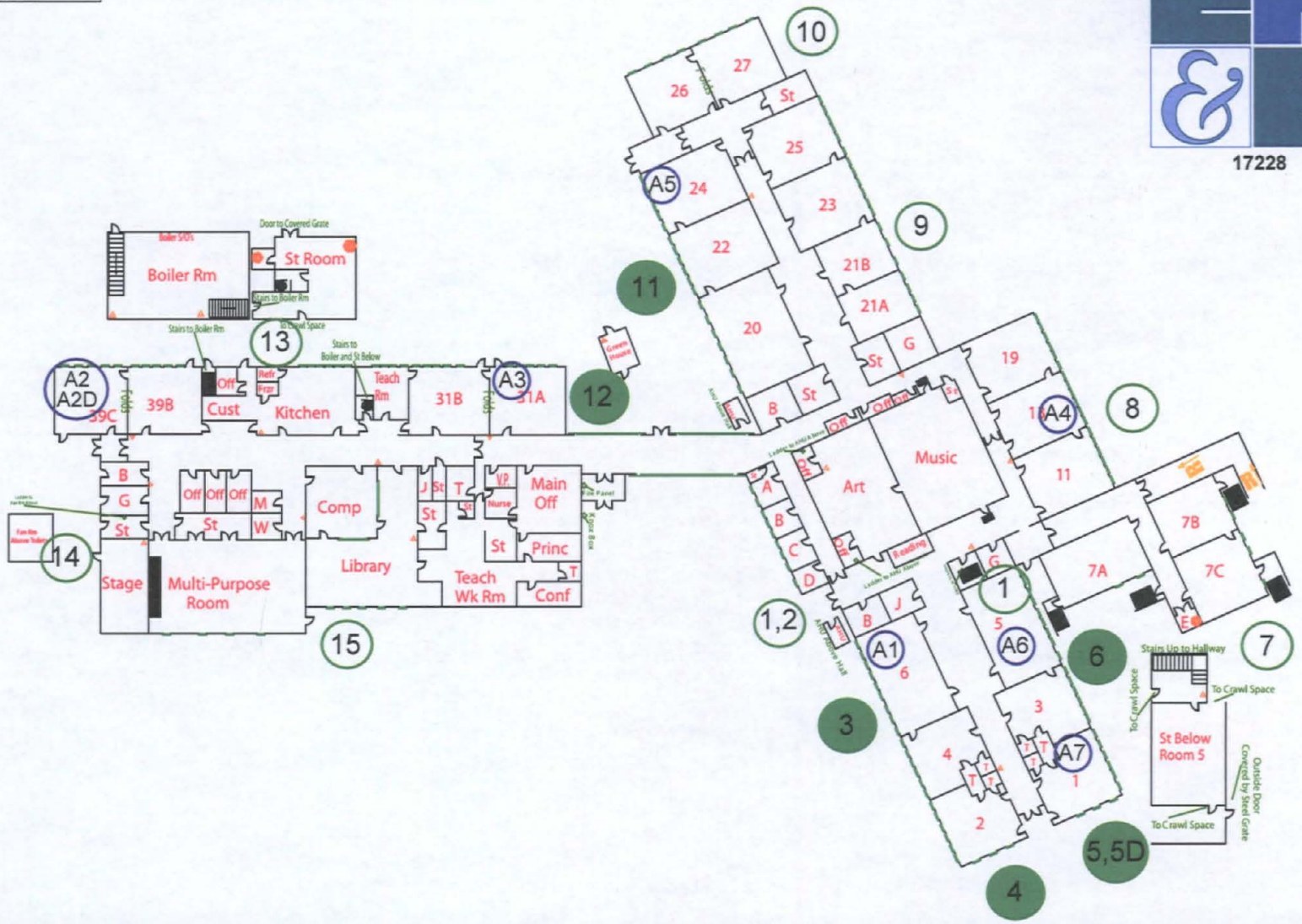
17228

EH&E Bulk Samples

Map Location	Sample ID	Aroclor ppm
1	112207	7.2
2	112208	9.5
3	112209	15000
4	112210	21000
5	112211	16000
5D	112212	17000
6	112213	9900
7	112214	4.4
8	112215	7.4
9	112216	0.98
10	112217	0.88
11	112218	190
12	112219	6000
13	112220	6.8
14	112221	2.9
15	112222	1.6

EH&E Air Samples

Map Location	Sample ID	ng/m3
A1	105529	1800
A2	105530	342
A2D	105531	284
A3	105532	562
A4	105533	319
A5	105534	680
A6	105535	459
A7	95350	299
outdoor	105536	<5



ATTACHMENT B
BULK SAMPLE LABORATORY REPORT

GROUNDWATER ANALYTICAL

Groundwater Analytical, Inc.
P.O. Box 1200
228 Main Street
Buzzards Bay, MA 02532

Telephone (508) 759-4441
FAX (508) 759-4475
www.groundwateranalytical.com

July 12, 2010

Mr. Matt Fragala
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

LABORATORY REPORT

Project: **17228**
Lab ID: **134157**
Received: **06-21-10**

Dear Matt:

Enclosed are the analytical results for the above referenced project. The project was processed for Priority turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC or NVLAP standards, except as may be specifically noted, or described in the project narrative. The analytical results relate only to the samples received. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jensen
Operations Manager

EHJ/elm
Enclosures

GROUNDWATER ANALYTICAL

Sample Receipt Report

Project: **17228** | Delivery: **GWA Courier** | Temperature: **5.2°C**
Client: **Environmental Health & Engineering, Inc.** | Airbill: **n/a** | Chain of Custody: **Present**
Lab ID: **134157** | Lab Receipt: **06-21-10** | Custody Seal(s): **n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-1	112176		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-2	112177		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-3	112178		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-4	112179		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-5	112180		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-6	112181		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-7	112182		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-8	112183		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-9	112184		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-10	112185		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-11	112186		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

GROUNDWATER ANALYTICAL

Sample Receipt Report (Continued)

Project: **17228** | Delivery: **GWA Courier** | Temperature: **5.2°C**
Client: **Environmental Health & Engineering, Inc.** | Airbill: **n/a** | Chain of Custody: **Present**
Lab ID: **134157** | Lab Receipt: **06-21-10** | Custody Seal(s): **n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-12	112187		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-13	112188		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-14	112189		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-15	112190		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-16	112191		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-17	112192		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-18	112193		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-19	112194		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-20	112195		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-21	112196		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-22	112197		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

GROUNDWATER ANALYTICAL

Sample Receipt Report (Continued)

Project: **17228** | Delivery: **GWA Courier** | Temperature: **5.2°C**
Client: **Environmental Health & Engineering, Inc.** | Airbill: **n/a** | Chain of Custody: **Present**
Lab ID: **134157** | Lab Receipt: **06-21-10** | Custody Seal(s): **n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-23	112198		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-24	112199		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-25	112200		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-26	112201		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-27	112202		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-28	112203		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-29	112204		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-30	112205		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-31	112206		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-32	112207		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-33	112208		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

GROUNDWATER ANALYTICAL

Sample Receipt Report (Continued)

Project: **17228** Delivery: **GWA Courier** Temperature: **5.2°C**
Client: **Environmental Health & Engineering, Inc.** Airbill: **n/a** Chain of Custody: **Present**
Lab ID: **134157** Lab Receipt: **06-21-10** Custody Seal(s): **n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-34	112209		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-35	112210		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-36	112211		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-37	112212		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-38	112213		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-39	112214		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-40	112215		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-41	112216		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-42	112217		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-43	112218		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-44	112219		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

GROUNDWATER ANALYTICAL

Sample Receipt Report (Continued)

Project:	**17228**	Delivery:	**GWA Courier**	Temperature:	**5.2°C**
Client:	**Environmental Health & Engineering, Inc.**	Airbill:	**n/a**	Chain of Custody:	**Present**
Lab ID:	**134157**	Lab Receipt:	**06-21-10**	Custody Seal(s):	**n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-45	112220		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-46	112221		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
134157-47	112222		Solid	6/21/10 0:00	EPA 8082 PCBs				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

GROUNDWATER ANALYTICAL

Data Certification

Project: **17228** Lab ID: **134157**
Client: **Environmental Health & Engineering, Inc.** Received: **06-21-10 19:40**

MA DEP Compendium of Analytical Methods					
Project Location: **n/a**			MA DEP RTN: **n/a**		
This Form provides certifications for the following data set: EPA 8082: 134157-1 through -47					
Sample Matrices:	Groundwater ( )	Soil/Sediment (X)	Drinking Water ( )	Other ( )	
MCP SW-846 Methods Used	8260B ( )	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C ( )	8081A ( )	VPH ( )	6020A ( )	9012A[2] ( )
As specified in MA DEP Compendium of Analytical Methods. (check all that apply)	8082 (X)	8021B ( )	EPH ( )	7000 S[3] ( )	Other ( )
	1. List Release Tracking Number (RTN), if known.				
	2. SW-846 Method 9012A (Equivalent to 9014) or MA DEP Physiologically Available Cyanide (PAC) Method				
	3. S - SW-846 Methods 7000 Series. List individual method and analyte.				

An affirmative response to questions A, B, C and D is required for "Presumptive Certainty" status.

A.	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?	Yes
B.	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes
C.	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty," as described in Section 2.0 of the MA DEP document CAM VII A, *Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data* ?	No
D.	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	n/a

A response to questions E and F below is required for "Presumptive Certainty" status.

E.	Were all QC performance standards and recommendations for the specified methods achieved?	No
F.	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes

All No answers are addressed in the attached Project Narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Operations Manager

Printed Name: Eric H. Jensen Date: 07-12-10

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112176**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-1**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.2 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 18:45**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	5,000
11097-69-1	Aroclor 1254	**11,000**	2C (10000)*	ug/Kg	5,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	170	120	**71 %**	30 - 150 %
	Decachlorobiphenyl	170	110	**66 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	170	120	**71 %**	30 - 150 %
	Decachlorobiphenyl	170	100	**61 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112177**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-2**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.1 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 02:29**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	19,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	19,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	19,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	19,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	19,000,000
11097-69-1	Aroclor 1254	**40,000,000**	2C (39000000)*	ug/Kg	19,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	19,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	19,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	19,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	65	n/a	d	30 - 150 %
	Decachlorobiphenyl	65	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	65	n/a	d	30 - 150 %
	Decachlorobiphenyl	65	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112178**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-3**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 02:53**	Dilution Factor:	**20000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	12,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	12,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	12,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	12,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	12,000,000
11097-69-1	Aroclor 1254	**44,000,000**	2C (43000000)*	ug/Kg	12,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	12,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	12,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	12,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	100	n/a	d	30 - 150 %
	Decachlorobiphenyl	100	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	100	n/a	d	30 - 150 %
	Decachlorobiphenyl	100	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112179**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-4**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.9 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 03:16**	Dilution Factor:	**20000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	13,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	13,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	13,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	13,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	13,000,000
11097-69-1	Aroclor 1254	**42,000,000**	2C (41000000)*	ug/Kg	13,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	13,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	13,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	13,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	110	n/a	d	30 - 150 %
	Decachlorobiphenyl	110	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	110	n/a	d	30 - 150 %
	Decachlorobiphenyl	110	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112180**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-5**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**6.2 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 03:39**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	9,800,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	9,800,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	9,800,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	9,800,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	9,800,000
11097-69-1	Aroclor 1254	**47,000,000**	2C (43000000)*	ug/Kg	9,800,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	9,800,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	9,800,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	9,800,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	32	n/a	d	30 - 150 %
	Decachlorobiphenyl	32	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	32	n/a	d	30 - 150 %
	Decachlorobiphenyl	32	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112181**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-6**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5.6 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 01:18**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	2,200
11104-28-2	Aroclor 1221	BRL		ug/Kg	2,200
11141-16-5	Aroclor 1232	BRL		ug/Kg	2,200
53469-21-9	Aroclor 1242	BRL		ug/Kg	2,200
12672-29-6	Aroclor 1248	BRL		ug/Kg	2,200
11097-69-1	Aroclor 1254	**36,000**	e 2C (36000)*	ug/Kg	2,200
11096-82-5	Aroclor 1260	BRL		ug/Kg	2,200
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	2,200
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	2,200

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	36	24	**66 %**	30 - 150 %
Column	Decachlorobiphenyl	36	18	**51 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	36	26	**72 %**	30 - 150 %
Column	Decachlorobiphenyl	36	17	**48 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

e Indicates concentration exceeded calibration range for the analyte.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112181**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-6RA1**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5.6 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 14:42**	Dilution Factor:	**20**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	4,300
11104-28-2	Aroclor 1221	BRL		ug/Kg	4,300
11141-16-5	Aroclor 1232	BRL		ug/Kg	4,300
53469-21-9	Aroclor 1242	BRL		ug/Kg	4,300
12672-29-6	Aroclor 1248	BRL		ug/Kg	4,300
11097-69-1	Aroclor 1254	**33,000**	2C (29000)*	ug/Kg	4,300
11096-82-5	Aroclor 1260	BRL		ug/Kg	4,300
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	4,300
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	4,300

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	36	n/a	d	30 - 150 %
	Decachlorobiphenyl	36	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	36	n/a	d	30 - 150 %
	Decachlorobiphenyl	36	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112182**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-7**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**13 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 01:42**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	470
11104-28-2	Aroclor 1221	BRL		ug/Kg	470
11141-16-5	Aroclor 1232	BRL		ug/Kg	470
53469-21-9	Aroclor 1242	BRL		ug/Kg	470
12672-29-6	Aroclor 1248	BRL		ug/Kg	470
11097-69-1	Aroclor 1254	**7,300**	e 2C (6900)*	ug/Kg	470
11096-82-5	Aroclor 1260	BRL		ug/Kg	470
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	470
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	470

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	16	5	**32 %**	30 - 150 %
Column	Decachlorobiphenyl	16	5	**32 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	16	6	**35 %**	30 - 150 %
Column	Decachlorobiphenyl	16	4	**27 %** m	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

e Indicates concentration exceeded calibration range for the analyte.

m Surrogate recovery outside recommended limits due to sample matrix interference.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112182**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-7RA1**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**13 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 15:06**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	940
11104-28-2	Aroclor 1221	BRL		ug/Kg	940
11141-16-5	Aroclor 1232	BRL		ug/Kg	940
53469-21-9	Aroclor 1242	BRL		ug/Kg	940
12672-29-6	Aroclor 1248	BRL		ug/Kg	940
11097-69-1	Aroclor 1254	**10,000**	2C (9000)*	ug/Kg	940
11096-82-5	Aroclor 1260	BRL		ug/Kg	940
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	940
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	940

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	16	8	**52 %**	30 - 150 %
	Decachlorobiphenyl	16	6	**39 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	16	8	**54 %**	30 - 150 %
	Decachlorobiphenyl	16	8	**48 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112183**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-8**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**8.5 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 02:05**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,400
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,400
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,400
53469-21-9	Aroclor 1242	BRL		ug/Kg	1,400
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,400
11097-69-1	Aroclor 1254	**5,800**	1C (5700)*	ug/Kg	1,400
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,400
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	1,400
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	1,400

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	24	19	**80 %**	30 - 150 %
Column	Decachlorobiphenyl	24	14	**57 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	24	18	**78 %**	30 - 150 %
Column	Decachlorobiphenyl	24	12	**50 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112184**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-9**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 04:03**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	12,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	12,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	12,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	12,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	12,000,000
11097-69-1	Aroclor 1254	51,000,000	2C (49000000)*	ug/Kg	12,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	12,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	12,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	12,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	40	n/a	d	30 - 150 %
	Decachlorobiphenyl	40	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	40	n/a	d	30 - 150 %
	Decachlorobiphenyl	40	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112185**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-10**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**4 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 04:27**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	15,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	15,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	15,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	15,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	15,000,000
11097-69-1	Aroclor 1254	**38,000,000**	2C (37000000)*	ug/Kg	15,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	15,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	15,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	15,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	50	n/a	d	30 - 150 %
	Decachlorobiphenyl	50	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	50	n/a	d	30 - 150 %
	Decachlorobiphenyl	50	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112186**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-11**	QC Batch ID:	**PB-3468-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.9 g**
Extracted:	**06-22-10 19:00**	Final Volume:	**1 mL**
Cleaned Up:	**06-24-10 01:30**	Percent Solids:	**n/a**
Analyzed:	**06-28-10 04:50**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	21,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	21,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	21,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	21,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	21,000,000
11097-69-1	Aroclor 1254	**54,000,000**	2C (50000000)*	ug/Kg	21,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	21,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	21,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	21,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	69	n/a	d	30 - 150 %
	Decachlorobiphenyl	69	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	69	n/a	d	30 - 150 %
	Decachlorobiphenyl	69	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112187**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-12**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5.4 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-07-10 21:59**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	11,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	11,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	11,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	11,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	11,000,000
11097-69-1	Aroclor 1254	**67,000,000**	2C (62000000)*	ug/Kg	11,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	11,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	11,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	11,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	37	n/a	d	30 - 150 %
	Decachlorobiphenyl	37	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	37	n/a	d	30 - 150 %
	Decachlorobiphenyl	37	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112188**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-13**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.3 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-07-10 22:23**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	18,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	18,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	18,000,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	18,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	18,000,000
11097-69-1	Aroclor 1254	**70,000,000**	2C (67000000)*	ug/Kg	18,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	18,000,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	18,000,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	18,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	60	n/a	d	30 - 150 %
	Decachlorobiphenyl	60	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	60	n/a	d	30 - 150 %
	Decachlorobiphenyl	60	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112189**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-14**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**6.5 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 20:40**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,900
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,900
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,900
53469-21-9	Aroclor 1242	BRL		ug/Kg	1,900
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,900
11097-69-1	Aroclor 1254	**5,100**	2C (4300)*	ug/Kg	1,900
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,900
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	1,900
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	1,900

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	31	16	**52 %**	30 - 150 %
	Decachlorobiphenyl	31	23	**73 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	31	21	**68 %**	30 - 150 %
	Decachlorobiphenyl	31	27	**87 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112190**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-15**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**13 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 07:42**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	950
11104-28-2	Aroclor 1221	BRL		ug/Kg	950
11141-16-5	Aroclor 1232	BRL		ug/Kg	950
53469-21-9	Aroclor 1242	BRL		ug/Kg	950
12672-29-6	Aroclor 1248	BRL		ug/Kg	950
11097-69-1	Aroclor 1254	**2,700**	2C (2600)*	ug/Kg	950
11096-82-5	Aroclor 1260	BRL		ug/Kg	950
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	950
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	950

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	16	8	**51 %**	30 - 150 %
	Decachlorobiphenyl	16	11	**67 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	16	5	**34 %**	30 - 150 %
	Decachlorobiphenyl	16	13	**85 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112191**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-16**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.8 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-07-10 22:46**	Dilution Factor:	**500**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	160,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	160,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	160,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	160,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	160,000
11097-69-1	Aroclor 1254	**790,000**	2C (750000)	ug/Kg	160,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	160,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	160,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	160,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	53	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %
Second	Tetrachloro-*m*-xylene	53	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112192**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-17**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**0.64 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 08:06**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	9,400
11104-28-2	Aroclor 1221	BRL		ug/Kg	9,400
11141-16-5	Aroclor 1232	BRL		ug/Kg	9,400
53469-21-9	Aroclor 1242	BRL		ug/Kg	9,400
12672-29-6	Aroclor 1248	BRL		ug/Kg	9,400
11097-69-1	Aroclor 1254	**30,000**	2C (28000)*	ug/Kg	9,400
11096-82-5	Aroclor 1260	BRL		ug/Kg	9,400
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	9,400
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	9,400

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	310	180	**58 %**	30 - 150 %
	Decachlorobiphenyl	310	180	**57 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	310	200	**63 %**	30 - 150 %
	Decachlorobiphenyl	310	230	**73 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112193**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-18**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.8 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 13:12**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	310
11104-28-2	Aroclor 1221	BRL		ug/Kg	310
11141-16-5	Aroclor 1232	BRL		ug/Kg	310
53469-21-9	Aroclor 1242	BRL		ug/Kg	310
12672-29-6	Aroclor 1248	BRL		ug/Kg	310
11097-69-1	Aroclor 1254	**2,600**	2C (2600)*	ug/Kg	310
11096-82-5	Aroclor 1260	BRL		ug/Kg	310
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	310
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	310

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	52	25	**48 %**	30 - 150 %
Column	Decachlorobiphenyl	52	26	**50 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	52	23	**44 %**	30 - 150 %
Column	Decachlorobiphenyl	52	38	**72 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112194**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	Cool
Laboratory ID:	**134157-19**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5.4 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 13:36**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	220
11104-28-2	Aroclor 1221	BRL		ug/Kg	220
11141-16-5	Aroclor 1232	BRL		ug/Kg	220
53469-21-9	Aroclor 1242	BRL		ug/Kg	220
12672-29-6	Aroclor 1248	BRL		ug/Kg	220
11097-69-1	Aroclor 1254	**1,500**	2C (1400)*	ug/Kg	220
11096-82-5	Aroclor 1260	BRL		ug/Kg	220
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	220
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	220

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	37	9	**26** % m	30 - 150 %
Column	Decachlorobiphenyl	37	9	**23** % m	30 - 150 %
Second	Tetrachloro-*m*-xylene	37	9	**25** % m	30 - 150 %
Column	Decachlorobiphenyl	37	14	**37** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

m Surrogate recovery outside recommended limits due to sample matrix interference.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112195**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-20**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.6 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 14:00**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	330
11104-28-2	Aroclor 1221	BRL		ug/Kg	330
11141-16-5	Aroclor 1232	BRL		ug/Kg	330
53469-21-9	Aroclor 1242	BRL		ug/Kg	330
12672-29-6	Aroclor 1248	BRL		ug/Kg	330
11097-69-1	Aroclor 1254	**2,800**	2C (2600)*	ug/Kg	330
11096-82-5	Aroclor 1260	BRL		ug/Kg	330
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	330
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	330

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	55	19	**34 %**	30 - 150 %
	Decachlorobiphenyl	55	17	**31 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	55	19	**34 %**	30 - 150 %
	Decachlorobiphenyl	55	25	**46 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112196**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-21**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.7 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-07-10 23:10**	Dilution Factor:	**500**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	160,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	160,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	160,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	160,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	160,000
11097-69-1	Aroclor 1254	**1,000,000**	2C (970000)	ug/Kg	160,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	160,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	160,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	160,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	54	n/a	d	30 - 150 %
	Decachlorobiphenyl	54	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	54	n/a	d	30 - 150 %
	Decachlorobiphenyl	54	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112197**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-22**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.1 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 08:29**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,500
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,500
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,500
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,500
12672-29-6	Aroclor 1248	BRL		ug/Kg	5,500
11097-69-1	Aroclor 1254	**11,000**	2C (11000)*	ug/Kg	5,500
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,500
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,500
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,500

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	180	93	**51 %**	30 - 150 %
Column	Decachlorobiphenyl	180	90	**49 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	180	110	**59 %**	30 - 150 %
Column	Decachlorobiphenyl	180	110	**60 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112198**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-23**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.5 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 14:23**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	480
11104-28-2	Aroclor 1221	BRL		ug/Kg	480
11141-16-5	Aroclor 1232	BRL		ug/Kg	480
53469-21-9	Aroclor 1242	BRL		ug/Kg	480
12672-29-6	Aroclor 1248	BRL		ug/Kg	480
11097-69-1	Aroclor 1254	**5,000**	2C (4800)*	ug/Kg	480
11096-82-5	Aroclor 1260	BRL		ug/Kg	480
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	480
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	480

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	80	31	**39 %**	30 - 150 %
Column	Decachlorobiphenyl	80	33	**42 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	80	31	**39 %**	30 - 150 %
Column	Decachlorobiphenyl	80	43	**54 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112199**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-24**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.9 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 14:47**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	630
11104-28-2	Aroclor 1221	BRL		ug/Kg	630
11141-16-5	Aroclor 1232	BRL		ug/Kg	630
53469-21-9	Aroclor 1242	BRL		ug/Kg	630
12672-29-6	Aroclor 1248	BRL		ug/Kg	630
11097-69-1	Aroclor 1254	**5,000**	2C (4600)*	ug/Kg	630
11096-82-5	Aroclor 1260	BRL		ug/Kg	630
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	630
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	630

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	110	39	**37 %**	30 - 150 %
	Decachlorobiphenyl	110	39	**37 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	110	39	**37 %**	30 - 150 %
	Decachlorobiphenyl	110	61	**57 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112200**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-25**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.1 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 19:30**	Dilution Factor:	**1000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	380,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	380,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	380,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	380,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	380,000
11097-69-1	Aroclor 1254	**1,900,000**	2C (1800000)*	ug/Kg	380,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	380,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	380,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	380,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	64	n/a	d	30 - 150 %
	Decachlorobiphenyl	64	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	64	n/a	d	30 - 150 %
	Decachlorobiphenyl	64	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112201**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-26**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**4.1 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 19:53**	Dilution Factor:	**1000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	290,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	290,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	290,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	290,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	290,000
11097-69-1	Aroclor 1254	**1,400,000**	2C (1300000)*	ug/Kg	290,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	290,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	290,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	290,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	48	n/a	d	30 - 150 %
	Decachlorobiphenyl	48	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	48	n/a	d	30 - 150 %
	Decachlorobiphenyl	48	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112202**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-27**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.7 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 20:17**	Dilution Factor:	**1000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	320,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	320,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	320,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	320,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	320,000
11097-69-1	Aroclor 1254	**1,600,000**	2C (1500000)*	ug/Kg	320,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	320,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	320,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	320,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	53	n/a	d	30 - 150 %
	Decachlorobiphenyl	53	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	53	n/a	d	30 - 150 %
	Decachlorobiphenyl	53	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112203**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-28**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.2 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 15:10**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	550
11104-28-2	Aroclor 1221	BRL		ug/Kg	550
11141-16-5	Aroclor 1232	BRL		ug/Kg	550
53469-21-9	Aroclor 1242	BRL		ug/Kg	550
12672-29-6	Aroclor 1248	BRL		ug/Kg	550
11097-69-1	Aroclor 1254	**2,600**	2C (2500)*	ug/Kg	550
11096-82-5	Aroclor 1260	BRL		ug/Kg	550
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	550
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	550

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	91	23	**25 %** m	30 - 150 %
	Decachlorobiphenyl	91	28	**30 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	91	23	**26 %** m	30 - 150 %
	Decachlorobiphenyl	91	31	**34 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

m Surrogate recovery outside recommended limits due to sample matrix interference.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112204**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-29**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.3 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 01:42**	Dilution Factor:	**500**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	260,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	260,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	260,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	260,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	260,000
11097-69-1	Aroclor 1254	**1,700,000**	2C (1500000)*	ug/Kg	260,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	260,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	260,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	260,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	88	n/a	d	30 - 150 %
	Decachlorobiphenyl	88	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	88	n/a	d	30 - 150 %
	Decachlorobiphenyl	88	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112205**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-30**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.6 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 02:09**	Dilution Factor:	**200**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	150,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	150,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	150,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	150,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	150,000
11097-69-1	Aroclor 1254	**1,600,000**	2C (1400000)*	ug/Kg	150,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	150,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	150,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	150,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	120	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	120	n/a	d	30 - 150 %
Second	Tetrachloro-*m*-xylene	120	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	120	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112206**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-31**	QC Batch ID:	**PB-3485-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.9 g**
Extracted:	**06-30-10 00:30**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 21:30**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 15:34**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	420
11104-28-2	Aroclor 1221	BRL		ug/Kg	420
11141-16-5	Aroclor 1232	BRL		ug/Kg	420
53469-21-9	Aroclor 1242	BRL		ug/Kg	420
12672-29-6	Aroclor 1248	BRL		ug/Kg	420
11097-69-1	Aroclor 1254	**1,700**	2C (1500)*	ug/Kg	420
11096-82-5	Aroclor 1260	BRL		ug/Kg	420
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	420
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	420

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	69	22	**32 %**	30 - 150 %
	Decachlorobiphenyl	69	29	**42 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	69	25	**36 %**	30 - 150 %
	Decachlorobiphenyl	69	32	**47 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
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- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 6/21/10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: GWA

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 17228

The cost of this analysis will be covered by EH&E Purchase Order # 17228

For EH & E Data Coordinator - URGENT DATA ☒

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
112207	Bulk	EPA 8082 PCBs	
112208			
112209			
112210			
112211			
112212			
112213			
112214			
112215			
112216			
112217			
112218			
112219			
112220			
112221			
112222			

Special Instructions:

☐ Standard turn around time ☒ Rush by 6/30/10 date/time ☐ Other

☐ Fax results 781-247-4305

5.2°C ☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@ehelnc.com

☒ Additional report recipient mfraggis@ehelnc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 6/21/10

Received by: Alan Maddigan of (company name) Groundwater a Date: 6/21/10

Relinquished by: Alan Maddigan of (company name) Groundwater a Date: 6/21/10

Received by: _____ of (company name) Groundwater A Date: 6/21/10

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 6/21/10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: GWA

Please send invoices to ATTN: Accounts Payable
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In all correspondence regarding this matter, please refer to EH&E Project # 17228

The cost of this analysis will be covered by EH&E Purchase Order # 17228

For EH & E Data Coordinator - URGENT DATA ☒

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
112191	Bulk	PCBs EPA 8082	
112192			
112193			
112194			
112195			
112196			
112197			
112198			
112199			
112200			
112201			
112202			
112203			
112204			
112205			
112206			

Special instructions:

5.2°C

☐ Standard turn around time ☒ Rush by 6/30/10 date/time ☐ Other

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient mfraggala@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 6/21/10

Received by: Alan Maddigan of (company name) Groundwater A. Date: 6/21/10

Relinquished by: Alan Maddigan of (company name) Groundwater A. Date: 6/21/10

Received by: _____ of (company name) Fedex Date: 6/22/10 1940

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 1

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GROUNDWATER ANALYTICAL

Project Narrative

Project:	**17228**	Lab ID:	**134157**
Client:	**Environmental Health & Engineering, Inc.**	Received:	**06-21-10 19:40**

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. EPA 8082 Non-conformance: Samples 134157-2 through -5, -6RA1, -9 through -13, -16, -21, -25, -26, -27, -29, -30, -34 through -38, -43 and -44. Samples did not have measureable surrogate recoveries due to required sample dilution.
2. EPA 8082 Non-conformance: Samples 134157-6 and -7. Reported results for selected analytes exceeded the high standard of the associated calibration curve. Results are estimated. Samples were reanalyzed and reported with all analytes within calibration.
3. EPA 8082 Note: Samples 134157-1 through -17, -21, -22, -25, -26, -27, -29, -30, -32 through -38, -43, -44, -45, -47, -6RA1 and -7RA1. Samples were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
4. Samples 134157-1 through -47 were not received with sample collection times listed on the Chain of Custody. Samples were reported with a sampling collection time of 00:00 by the laboratory.
5. EPA 8082 Non-conformance: Laboratory control sample (LCS) analytes Aroclor 1260 and Aroclor 1016 were outside recommended recovery limits for QC batch PB-3491-X
6. EPA 8082 Non-conformance: Laboratory control sample (LCS) analyte Aroclor 1260 had an RPD recovery outside recommended recovery limits for QC batch PB-3491-X
7. EPA 8082 Non-conformance: Sample 134157-28. Sample had a surrogate recovery below recommended recovery limits due to sample matrix interference. No additional sample was available for reanalysis.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 6/21/10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: GWA

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 17228

The cost of this analysis will be covered by EH&E Purchase Order # 17228

For EH & E Data Coordinator - URGENT DATA ☒

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
112176	Bulk	PCBs EPA 8082	
112177	↓	↓	
112178			
112179			
112180			
112181			
112182			
112183			
112184			
112185			
112186			
112187			
112188			
112189			
112190	↓	↓	

Special instructions:

☐ Standard turn around time ☒ Rush by 6/30/2010 date/time ☐ Other

☐ Fax results 781-247-4305

5.2°C ☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient mfraga@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 6/21/10

Received by: Alan Maddigan of (company name) Groundwater A. Date: 6/21/10

Relinquished by: Alan Maddigan of (company name) Groundwater a. Date: 6/21/10

Received by: _____ of (company name) Groundwater A Date: 6/21/10

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 1

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GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112207**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-32**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.2 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 08:53**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,000
12672-29-6	Aroclor 1248	**7,200**	1C (6600)*	ug/Kg	5,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	5,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	170	74	**44 %**	30 - 150 %
Column	Decachlorobiphenyl	170	67	**40 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	170	68	**41 %**	30 - 150 %
Column	Decachlorobiphenyl	170	81	**48 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112208**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-33**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**1.5 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 09:16**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	3,900
11104-28-2	Aroclor 1221	BRL		ug/Kg	3,900
11141-16-5	Aroclor 1232	BRL		ug/Kg	3,900
53469-21-9	Aroclor 1242	BRL		ug/Kg	3,900
12672-29-6	Aroclor 1248	**9,500**	1C (9300)*	ug/Kg	3,900
11097-69-1	Aroclor 1254	BRL		ug/Kg	3,900
11096-82-5	Aroclor 1260	BRL		ug/Kg	3,900
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	3,900
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	3,900

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	130	56	**43** %	30 - 150 %
	Decachlorobiphenyl	130	57	**44** %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	130	60	**46** %	30 - 150 %
	Decachlorobiphenyl	130	73	**56** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112209**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-34**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**4.4 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 03:00**	Dilution Factor:	**20000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,400,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,400,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,400,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,400,000
12672-29-6	Aroclor 1248	**15,000,000**	1C (12000000)*	ug/Kg	5,400,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	5,400,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,400,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,400,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,400,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	45	n/a	d	30 - 150 %
	Decachlorobiphenyl	45	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	45	n/a	d	30 - 150 %
	Decachlorobiphenyl	45	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112210**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-35**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.8 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 03:23**	Dilution Factor:	**20000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	8,700,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	8,700,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	8,700,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	8,700,000
12672-29-6	Aroclor 1248	**21,000,000**	1C (17000000)*	ug/Kg	8,700,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	8,700,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	8,700,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	8,700,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	8,700,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	72	n/a	d	30 - 150 %
	Decachlorobiphenyl	72	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	72	n/a	d	30 - 150 %
	Decachlorobiphenyl	72	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112211**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-36**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**12 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 03:47**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	4,800,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	4,800,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	4,800,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	4,800,000
12672-29-6	Aroclor 1248	**16,000,000**	1C (14000000)*	ug/Kg	4,800,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	4,800,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	4,800,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	4,800,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	4,800,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	16	n/a	d	30 - 150 %
	Decachlorobiphenyl	16	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	16	n/a	d	30 - 150 %
	Decachlorobiphenyl	16	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112212**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-37**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**10 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 04:10**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,900,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,900,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,900,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,900,000
12672-29-6	Aroclor 1248	**17,000,000**	1C (14000000)*	ug/Kg	5,900,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	5,900,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,900,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	5,900,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	5,900,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	20	n/a	d	30 - 150 %
	Decachlorobiphenyl	20	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	20	n/a	d	30 - 150 %
	Decachlorobiphenyl	20	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112213**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-38**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**7.6 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 04:34**	Dilution Factor:	**50000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	7,900,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	7,900,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	7,900,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	7,900,000
12672-29-6	Aroclor 1248	**9,900,000**	1C (B100000)*	ug/Kg	7,900,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	7,900,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	7,900,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	7,900,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	7,900,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	26	n/a	d	30 - 150 %
	Decachlorobiphenyl	26	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	26	n/a	d	30 - 150 %
	Decachlorobiphenyl	26	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112214**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-39**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.4 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 15:58**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	500
11104-28-2	Aroclor 1221	BRL		ug/Kg	500
11141-16-5	Aroclor 1232	BRL		ug/Kg	500
53469-21-9	Aroclor 1242	BRL		ug/Kg	500
12672-29-6	Aroclor 1248	**4,400**	1C (2900)*	ug/Kg	500
11097-69-1	Aroclor 1254	BRL		ug/Kg	500
11096-82-5	Aroclor 1260	BRL		ug/Kg	500
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	500
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	500

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	82	61	**74 %**	30 - 150 %
	Decachlorobiphenyl	82	87	**105 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	82	57	**69 %**	30 - 150 %
	Decachlorobiphenyl	82	84	**102 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112215**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-40**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**0.32 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 16:21**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	3,800
11104-28-2	Aroclor 1221	BRL		ug/Kg	3,800
11141-16-5	Aroclor 1232	BRL		ug/Kg	3,800
53469-21-9	Aroclor 1242	BRL		ug/Kg	3,800
12672-29-6	Aroclor 1248	**7,400**	2C (6100)*	ug/Kg	3,800
11097-69-1	Aroclor 1254	BRL		ug/Kg	3,800
11096-82-5	Aroclor 1260	BRL		ug/Kg	3,800
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	3,800
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	3,800

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	620	480	**76 %**	30 - 150 %
	Decachlorobiphenyl	620	810	**131 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	620	470	**75 %**	30 - 150 %
	Decachlorobiphenyl	620	680	**108 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112216**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-41**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**5 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 18:42**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	240
11104-28-2	Aroclor 1221	BRL		ug/Kg	240
11141-16-5	Aroclor 1232	BRL		ug/Kg	240
53469-21-9	Aroclor 1242	BRL		ug/Kg	240
12672-29-6	Aroclor 1248	**360**	1C (290)*	ug/Kg	240
11097-69-1	Aroclor 1254	**620**	1C (550)*	ug/Kg	240
11096-82-5	Aroclor 1260	BRL		ug/Kg	240
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	240
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	240

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	40	18	**45 %**	30 - 150 %
	Decachlorobiphenyl	40	34	**85 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	40	16	**40 %**	30 - 150 %
	Decachlorobiphenyl	40	34	**85 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112217**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-42**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**4.2 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 19:06**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	280
11104-28-2	Aroclor 1221	BRL		ug/Kg	280
11141-16-5	Aroclor 1232	BRL		ug/Kg	280
53469-21-9	Aroclor 1242	BRL		ug/Kg	280
12672-29-6	Aroclor 1248	**880**	1C (610)*	ug/Kg	280
11097-69-1	Aroclor 1254	BRL		ug/Kg	280
11096-82-5	Aroclor 1260	BRL		ug/Kg	280
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	280
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	280

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	47	21	**44 %**	30 - 150 %
Column	Decachlorobiphenyl	47	23	**49 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	47	18	**38 %**	30 - 150 %
Column	Decachlorobiphenyl	47	19	**40 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112218**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-43**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**9.6 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 10:27**	Dilution Factor:	**200**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	25,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	25,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	25,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	25,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	25,000
11097-69-1	Aroclor 1254	**190,000**	2C (170000)	ug/Kg	25,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	25,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	25,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	25,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	21	n/a	d	30 - 150 %
	Decachlorobiphenyl	21	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	21	n/a	d	30 - 150 %
	Decachlorobiphenyl	21	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112219**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-44**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 10:51**	Dilution Factor:	**1000**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	590,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	590,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	590,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	590,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	590,000
11097-69-1	Aroclor 1254	**4,000,000**	2C (3600000)*	ug/Kg	590,000
11096-82-5	Aroclor 1260	**2,000,000**	2C (1200000)*	ug/Kg	590,000
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	590,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	590,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	99	n/a	d	30 - 150 %
	Decachlorobiphenyl	99	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	99	n/a	d	30 - 150 %
	Decachlorobiphenyl	99	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

d Surrogate recovery not measurable due to required sample dilution.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112220**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-45**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**3.2 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 11:14**	Dilution Factor:	**5**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,900
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,900
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,900
53469-21-9	Aroclor 1242	BRL		ug/Kg	1,900
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,900
11097-69-1	Aroclor 1254	**6,800**	2C (5600)*	ug/Kg	1,900
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,900
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	1,900
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	1,900

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	62	39	**62 %**	30 - 150 %
	Decachlorobiphenyl	62	48	**77 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	62	39	**62 %**	30 - 150 %
	Decachlorobiphenyl	62	76	**122 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112221**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-46**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**2.6 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 16:45**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	470
11104-28-2	Aroclor 1221	BRL		ug/Kg	470
11141-16-5	Aroclor 1232	BRL		ug/Kg	470
53469-21-9	Aroclor 1242	BRL		ug/Kg	470
12672-29-6	Aroclor 1248	BRL		ug/Kg	470
11097-69-1	Aroclor 1254	**2,900**	1C (2600)*	ug/Kg	470
11096-82-5	Aroclor 1260	BRL		ug/Kg	470
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	470
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	470

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	78	30	**39 %**	30 - 150 %
	Decachlorobiphenyl	78	63	**82 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	78	26	**33 %**	30 - 150 %
	Decachlorobiphenyl	78	59	**76 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
† Non-target analyte. Result is based on a single mid-range calibration standard.
* Confirmatory column quantification.
1C Concentration reported from first column.

GROUNDWATER ANALYTICAL

EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	**112222**	Matrix:	**Solid**
Project:	**17228**	Container:	**Plastic Bag**
Client:	**Environmental Health & Engineering, Inc.**	Preservation:	**Cool**
Laboratory ID:	**134157-47**	QC Batch ID:	**PB-3491-X**
Sampled:	**06-21-10 00:00**	Instrument ID:	**GC-11 Agilent 6890**
Received:	**06-21-10 19:40**	Sample Weight:	**26 g**
Extracted:	**07-01-10 20:00**	Final Volume:	**1 mL**
Cleaned Up:	**07-01-10 14:00**	Percent Solids:	**n/a**
Analyzed:	**07-08-10 12:49**	Dilution Factor:	**10**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	460
11104-28-2	Aroclor 1221	BRL		ug/Kg	460
11141-16-5	Aroclor 1232	BRL		ug/Kg	460
53469-21-9	Aroclor 1242	BRL		ug/Kg	460
12672-29-6	Aroclor 1248	**1,600**	1C (1500)*	ug/Kg	460
11097-69-1	Aroclor 1254	BRL		ug/Kg	460
11096-82-5	Aroclor 1260	BRL		ug/Kg	460
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	460
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	460

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	8	n/a	d	30 - 150 %
	Decachlorobiphenyl	8	n/a	d	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	8	n/a	d	30 - 150 %
	Decachlorobiphenyl	8	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.
Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

1C Concentration reported from first column.

d Surrogate recovery not measurable due to required sample dilution.

Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans,* US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste,* US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	**EPA 8082**	Instrument ID:	**GC-11 Agilent 6890**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3468-X**	Extracted:	**06-22-10 19:00**	Extracted:	**06-22-10 19:00**
Matrix:	**Soil**	Cleaned Up:	**06-23-10 01:30**	Cleaned Up:	**06-23-10 01:30**
Units:	**ug/Kg**	Analyzed:	**06-25-10 04:10**	Analyzed:	**06-25-10 04:34**
		Analyst:	**CRL**	Analyst:	**CRL**

CAS Number	Analyte	LCS					LCS Duplicate							QC Limits	
		Spiked	Measured		Recovery		Spiked	Measured		Recovery		RPD			
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	130	150	**81%**	**91%**	170	170	190	**101%**	**113%**	22 %	22 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	190	200	**113%**	**119%**	170	200	210	**120%**	**126%**	6 %	6 %	40 - 140%	30 %

QC Surrogate Compound	Surrogate Recovery											QC Limits
Tetrachloro-*m*-xylene	6.7	4.1	3.9	**62%**	**59%**	6.7	5.4	5.4	**81%**	**81%**		30 - 150 %
Decachlorobiphenyl	6.7	8.8	9.6	**133%**	**144%**	6.7	9.1	9.9	**137%**	**149%**		30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	**EPA Method 8082**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3468-X**	Extracted:	**06-22-10 19:00**
Matrix:	**Soil**	Cleaned Up:	**06-23-10 01:30**
		Analyzed:	**06-25-10 03:47**
		Analyst:	**CRL**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	6.7	4.8	**73** %	30 - 150 %
Column	Decachlorobiphenyl	6.7	8.6	**129** %	30 - 150 %
Second	Tetrachloro-*m*-xylene	6.7	5.2	**78** %	30 - 150 %
Column	Decachlorobiphenyl	6.7	9.5	**143** %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	**EPA 8082**	Instrument ID:	**GC-11 Agilent 6890**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3485-X**	Extracted:	**06-30-10 00:30**	Extracted:	**06-30-10 00:30**
Matrix:	**Soil**	Cleaned Up:	**07-01-10 21:30**	Cleaned Up:	**07-01-10 21:30**
Units:	**ug/Kg**	Analyzed:	**07-06-10 13:07**	Analyzed:	**07-06-10 13:31**
		Analyst:	**CRL**	Analyst:	**CRL**

CAS Number	Analyte	LCS					LCS Duplicate							QC Limits	
		Spiked	Measured		Recovery		Spiked	Measured		Recovery		RPD			
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	130	130	78%	79%	170	140	140	85%	83%	9 %	6 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	140	150	87%	89%	170	150	150	88%	90%	2 %	1 %	40 - 140%	30 %

QC Surrogate Compound	Surrogate Recovery											QC Limits
Tetrachloro-*m*-xylene	6.7	4.4	4.4	67%	66%	6.7	4.8	4.6	73%	69%		30 - 150 %
Decachlorobiphenyl	6.7	6.1	6.8	92%	102%	6.7	6.2	6.9	94%	104%		30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	**EPA Method 8082**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3485-X**	Extracted:	**06-30-10 00:30**
Matrix:	**Soil**	Cleaned Up:	**07-01-10 21:30**
		Analyzed:	**07-06-10 12:33**
		Analyst:	**CRL**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	6.7	4.7	**71 %**	30 - 150 %
	Decachlorobiphenyl	6.7	6.3	**95 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	6.7	4.5	**67 %**	30 - 150 %
	Decachlorobiphenyl	6.7	6.8	**102 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	**EPA 8082**	Instrument ID:	**GC-11 Agilent 6890**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3491-X**	Extracted:	**07-01-10 20:00**	Extracted:	**07-01-10 20:00**
Matrix:	**Soil**	Cleaned Up:	**07-03-10 14:00**	Cleaned Up:	**07-03-10 14:00**
Units:	**ug/Kg**	Analyzed:	**07-06-10 14:18**	Analyzed:	**07-06-10 14:41**
		Analyst:	**CRL**	Analyst:	**CRL**

CAS Number	Analyte	LCS					LCS Duplicate							QC Limits	
		Spiked	Measured		Recovery		Spiked	Measured		Recovery		RPD			
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	70	71	**42%**	**43%**	170	61	62	**37%** q	**37%** q	**14 %**	**14 %**	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	230	290	**141%** q	**175%** q	170	130	140	**80%**	**86%**	**55 %** q	**68 %** q	40 - 140%	30 %

QC Surrogate Compound	Surrogate Recovery										QC Limits
Tetrachloro-*m*-xylene	6.7	4.3	4.1	**65%**	**62%**	6.7	4.6	4.4	**69%**	**66%**	30 - 150 %
Decachlorobiphenyl	6.7	8.1	6.7	**121%**	**101%**	6.7	6.9	7.1	**104%**	**107%**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

q Recovery outside recommended limits.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	**EPA Method 8082**	Instrument ID:	**GC-11 Agilent 6890**
QC Batch ID:	**PB-3491-X**	Extracted:	**07-01-10 20:00**
Matrix:	**Soil**	Cleaned Up:	**07-03-10 14:00**
		Analyzed:	**07-06-10 13:54**
		Analyst:	**CRL**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	80
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-*m*-xylene	6.7	4.8	**72 %**	30 - 150 %
Column	Decachlorobiphenyl	6.7	5.9	**89 %**	30 - 150 %
Second	Tetrachloro-*m*-xylene	6.7	4.6	**69 %**	30 - 150 %
Column	Decachlorobiphenyl	6.7	5.8	**88 %**	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

GROUNDWATER ANALYTICAL

Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states.
Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT

Department of Health Services, PH-0586 — Potable Water, Wastewater, Solid Waste and Soil
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/Out_State.pdf

MASSACHUSETTS

Department of Environmental Protection, M-MA-103 — Potable Water and Non-Potable Water
http://public.dep.state.ma.us/labcert/labcert.aspx

Department of Labor,
Division of Occupational Safety, AA000195 — Asbestos Analytical Services, Class A
http://www.mass.gov/dos/forms/la-rpt_list_aa.pdf

NEW HAMPSHIRE

Department of Environmental Services, 202708 — Potable Water, Non-Potable Water, Solid and Chemical Materials
http://www4.egov.nh.gov/DES/NHELAP

NEW YORK

Department of Health, 11754 — Potable Water, Non-Potable Water, Solid and Hazardous Waste
http://www.wadsworth.org/labcert/elap/comm.html

RHODE ISLAND

Department of Health,
Division of Laboratories, LAO00054 — Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry
http://www.health.ri.gov/labs/outofstatelabs.pdf

U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921 — Foreign soil import permit

VERMONT

Department of Health, VT-87643 — Potable Water
http://healthvermont.gov/enviro/ph_lab/water_test.aspx#cert

GROUNDWATER ANALYTICAL

Certifications and Approvals

MASSACHUSETTS — **Department of Environmental Protection, M-MA-103**

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Potable Water (Drinking Water)

Analyte	Method
1,2-Dibromo-3-Chloropropane	EPA 504.1
1,2-Dibromoethane	EPA 504.1
Alkalinity, Total	SM 2320-B
Antimony	EPA 200.8
Arsenic	EPA 200.8
Barium	EPA 200.7
Barium	EPA 200.8
Beryllium	EPA 200.7
Beryllium	EPA 200.8
Cadmium	EPA 200.7
Cadmium	EPA 200.8
Calcium	EPA 200.7
Chlorine, Residual Free	SM 4500-CL-G
Chromium	EPA 200.7
Copper	EPA 200.7
Copper	EPA 200.8
Cyanide, Total	Lachat 10-204-00-1-A
E. Coli (Treatment and Distribution)	Enz. Sub. SM 9223
E. Coli (Treatment and Distribution)	NA-MUG SM 9222-G
Fecal Coliform (Source Water)	MF SM 9222-D
Fluoride	EPA 300.0
Fluoride	SM 4500-F-C
Heterotrophic Plate Count	SM 9215-B
Lead	EPA 200.8
Mercury	EPA 245.1
Nickel	EPA 200.7
Nickel	EPA 200.8
Nitrate-N	EPA 300.0
Nitrate-N	Lachat 10-107-04-1-C
Nitrite-N	EPA 300.0
Nitrite-N	Lachat 10-107-04-1-C
pH	SM 4500-H-B
Selenium	EPA 200.8
Silver	EPA 200.7
Silver	EPA 200.8
Sodium	EPA 200.7
Sulfate	EPA 300.0
Thallium	EPA 200.8
Total Coliform (Treatment and Distribution)	Enz. Sub. SM 9223
Total Coliform (Treatment and Distribution)	MF SM 9222-B
Total Dissolved Solids	SM 2540-C
Trihalomethanes	EPA 524.2
Turbidity	SM 2130-B
Volatile Organic Compounds	EPA 524.2

Non-Potable Water (Wastewater)

Analyte	Method
Aldrin	EPA 608
Alkalinity, Total	SM 2320-B
Alpha-BHC	EPA 608
Aluminum	EPA 200.7
Ammonia-N	Lachat 10-107-06-1-B

Non-Potable Water (Wastewater)

Analyte	Method
Antimony	EPA 200.7
Antimony	EPA 200.8
Arsenic	EPA 200.7
Arsenic	EPA 200.8
Beryllium	EPA 200.7
Beryllium	EPA 200.8
Beta-BHC	EPA 608
Biochemical Oxygen Demand	SM 5210-B
Cadmium	EPA 200.7
Cadmium	EPA 200.8
Calcium	EPA 200.7
Chemical Oxygen Demand	SM 5220-D
Chlordane	EPA 608
Chloride	EPA 300.0
Chlorine, Total Residual	SM 4500-CL-G
Chromium	EPA 200.7
Chromium	EPA 200.8
Cobalt	EPA 200.7
Cobalt	EPA 200.8
Copper	EPA 200.7
Copper	EPA 200.8
Cyanide, Total	Lachat 10-204-00-1-A
DDD	EPA 608
DDE	EPA 608
DDT	EPA 608
Delta-BHC	EPA 608
Dieldrin	EPA 608
Endosulfan I	EPA 608
Endosulfan II	EPA 608
Endosulfan Sulfate	EPA 608
Endrin	EPA 608
Endrin Aldehyde	EPA 608
Fluoride	EPA 300.0
Gamma-BHC	EPA 608
Hardness (CaCO3), Total	EPA 200.7
Hardness (CaCO3), Total	SM 2340-B
Heptachlor	EPA 608
Heptachlor Epoxide	EPA 608
Iron	EPA 200.7
Kjeldahl-N	Lachat 10-107-06-02-D
Lead	EPA 200.7
Magnesium	EPA 200.7
Manganese	EPA 200.7
Manganese	EPA 200.8
Mercury	EPA 245.1
Molybdenum	EPA 200.7
Molybdenum	EPA 200.8
Nickel	EPA 200.7
Nickel	EPA 200.8
Nitrate-N	EPA 300.0
Nitrate-N	Lachat 10-107-04-1-C
Non-Filterable Residue	SM 2540-D
Oil and Grease	EPA 1664

GROUNDWATER ANALYTICAL

Certifications and Approvals

MASSACHUSETTS	Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Non-Potable Water (Wastewater)

Analyte	Method
Orthophosphate	Lachat 10-115-01-1-A
pH	SM 4500-H-B
Phenolics, Total	EPA 420.4
Phenolics, Total	Lachat 10-210-00-1-B
Phosphorus, Total	Lachat 10-115-01-1-C
Phosphorus, Total	SM 4500-P-B,E
Polychlorinated Biphenyls (Oil)	EPA 600/4-81-045
Polychlorinated Biphenyls (Water)	EPA 608
Potassium	EPA 200.7
Selenium	EPA 200.7
Selenium	EPA 200.8
Silver	EPA 200.7
Sodium	EPA 200.7
Specific Conductivity	SM 2510-B
Strontium	EPA 200.7
Sulfate	EPA 300.0
SVOC-Acid Extractables	EPA 625
SVOC-Base/Neutral Extractables	EPA 625
Thallium	EPA 200.7
Thallium	EPA 200.8
Titanium	EPA 200.7
Total Dissolved Solids	SM 2540-C
Total Organic Carbon	SM 5310-B
Toxaphene	EPA 608
Vanadium	EPA 200.7
Vanadium	EPA 200.8
Volatile Aromatics	EPA 602
Volatile Aromatics	EPA 624
Volatile Halocarbons	EPA 624
Zinc	EPA 200.7
Zinc	EPA 200.8

ATTACHMENT C
AIR SAMPLE LABORATORY REPORT

ALPHA ANALYTICAL

ANALYTICAL REPORT

Lab Number:	L1011335
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Matt Fragala
Phone:	(781) 247-4300
Project Name:	Not Specified
Project Number:	17228
Report Date:	08/09/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1011335-01	105511	Not Specified	07/22/10 00:00
L1011335-02	105512	Not Specified	07/22/10 00:00
L1011335-03	105513	Not Specified	07/22/10 00:00
L1011335-04	105514	Not Specified	07/22/10 00:00
L1011335-05	105515	Not Specified	07/22/10 00:00
L1011335-06	105516	Not Specified	07/22/10 00:00
L1011335-07	105517	Not Specified	07/22/10 00:00
L1011335-08	105518	Not Specified	07/22/10 00:00
L1011335-09	105519	Not Specified	07/22/10 00:00
L1011335-10	105520	Not Specified	07/22/10 00:00
L1011335-11	105521	Not Specified	07/22/10 00:00
L1011335-12	105522	Not Specified	07/22/10 00:00
L1011335-13	105523	Not Specified	07/22/10 00:00
L1011335-14	105524	Not Specified	07/22/10 00:00
L1011335-15	105525	Not Specified	07/22/10 00:00
L1011335-16	105526	Not Specified	07/22/10 00:00
L1011335-17	105527	Not Specified	07/22/10 00:00
L1011335-18	105528	Not Specified	07/22/10 00:00
L1011335-19	105529	Not Specified	07/22/10 00:00
L1011335-20	105530	Not Specified	07/22/10 00:00
L1011335-21	105531	Not Specified	07/22/10 00:00
L1011335-22	105532	Not Specified	07/22/10 00:00
L1011335-23	105533	Not Specified	07/22/10 00:00
L1011335-24	105534	Not Specified	07/22/10 00:00
L1011335-25	105535	Not Specified	07/22/10 00:00
L1011335-26	105536	Not Specified	07/22/10 00:00
L1011335-27	95349	Not Specified	07/22/10 00:00
L1011335-28	95350	Not Specified	07/22/10 00:00

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice. The client was notified of the exceedance, and all requested analyses were performed.

PCB Homologs by GC/MS-SIM

L1011335-01 through -28 were analyzed at dilution due to the sample matrix.

The surrogate recoveries for L1011335-20 were above the acceptance criteria for Cl3-BZ#19-C13 (230%) and Cl8-BZ#202-C13 (247%); however, re-extraction could not be performed due to sample matrix. The results of the original analysis are reported; however, all associated compounds are considered to have a potentially high bias.

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Case Narrative (continued)

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kathleen M. O'Brien Kathleen O'Brien

Title: Technical Director/Representative Date: 08/09/10

ORGANICS

SEMIVOLATILES

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-01	D	Date Collected:	07/22/10 00:00
Client ID:	105511		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:17
Analytical Date:	08/06/10 02:36		Cleanup Method1:	----
Analyst:	JS			----
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	11.0		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	7.90		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	18.9		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	100		50-125
Cl8-BZ#202-C13	95		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-02	D	Date Collected:	07/22/10 00:00
Client ID:	105512		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:17
Analytical Date:	08/06/10 03:43		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	15.8		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	2.5	J	ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	2.9	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	21.2		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	92		50-125
Cl8-BZ#202-C13	87		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-03	D	Date Collected:	07/22/10 00:00
Client ID:	105513		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:17
Analytical Date:	08/06/10 04:50		Cleanup Method1:	----
Analyst:	JS			----
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	4	J	ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	2.7	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	3.9	J	ng/cart	5.00	2.50	2
Hexachlorobiphenyls	42.6		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	24.3		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	77.5		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	90		50-125
Cl8-BZ#202-C13	85		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-04	D	Date Collected:	07/22/10 00:00
Client ID:	105514		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:17
Analytical Date:	08/06/10 05:57		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	4	J	ng/cart	5.00	2.50	2
Dichlorobiphenyls	4	J	ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	8.00		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	85		50-125
Cl8-BZ#202-C13	85		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-05	D
Client ID:	105515	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/06/10 07:04	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/28/10 15:17
Cleanup Method1:	- - - -
	- - - -
Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	4.3	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	4.3	J	ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	89		50-125
Cl8-BZ#202-C13	81		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-06	D
Client ID:	105516	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/06/10 08:11	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/28/10 15:17
Cleanup Method1:	- - - -
	- - - -
Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	3.3	J	ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	3.3	J	ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	88		50-125
Cl8-BZ#202-C13	80		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-07	D	Date Collected:	07/22/10 00:00
Client ID:	105517		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:17
Analytical Date:	08/06/10 09:18		Cleanup Method1:	----
Analyst:	JS			----
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	ND		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	87		50-125
Cl8-BZ#202-C13	84		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-08	D	Date Collected:	07/22/10 00:00
Client ID:	105518		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:17
Analytical Date:	08/06/10 10:24		Cleanup Method1:	----
Analyst:	JS			----
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	ND		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	82		50-125
Cl8-BZ#202-C13	78		50-125

Project Name: Not Specified
Project Number: 17228
Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-09	D	Date Collected:	07/22/10 00:00
Client ID:	105519		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:17
Analytical Date:	08/06/10 11:31		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	8.30		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	2.9	J	ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	3.4	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	14.6		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	92		50-125
Cl8-BZ#202-C13	83		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-10	D
Client ID:	105520	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/06/10 14:42	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/28/10 15:17
Cleanup Method1:	- - - -
	- - - -
Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	6.20		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	101		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	83.9		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	28.7		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	219		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	89		50-125
Cl8-BZ#202-C13	92		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-11	D	Date Collected:	07/22/10 00:00
Client ID:	105521		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:17
Analytical Date:	08/06/10 15:49		Cleanup Method1:	----
Analyst:	JS			----
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	48.7		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	53.5		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	3.1	J	ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	105		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	79		50-125
Cl8-BZ#202-C13	77		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-12	D	Date Collected:	07/22/10 00:00
Client ID:	105522		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:19
Analytical Date:	08/06/10 16:56		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	21.1		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	9.40		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	30.5		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	86		50-125
Cl8-BZ#202-C13	81		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-13	D
Client ID:	105523	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/06/10 18:03	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/28/10 15:19
Cleanup Method1:	----

Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	21.0		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	8.60		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	29.6		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	86		50-125
Cl8-BZ#202-C13	85		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-14	D	Date Collected:	07/22/10 00:00
Client ID:	105524		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:19
Analytical Date:	08/06/10 19:10		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	9.40		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	2.7	J	ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	12.1		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	91		50-125
Cl8-BZ#202-C13	85		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-15	D	Date Collected:	07/22/10 00:00
Client ID:	105525		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:19
Analytical Date:	08/06/10 20:17		Cleanup Method1:	----
Analyst:	JS			----
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	3.2	J	ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	3.1	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	3.3	J	ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	9.60		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	92		50-125
Cl8-BZ#202-C13	87		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-16	D
Client ID:	105526	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/06/10 21:24	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/28/10 15:19
Cleanup Method1:	- - - -
	- - - -
Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	21.5		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	10.7		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	32.2		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	81		50-125
Cl8-BZ#202-C13	77		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-17	D
Client ID:	105527	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/06/10 22:31	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/28/10 15:19
Cleanup Method1:	- - - -
	- - - -
Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	23.3		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	23.3		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	91		50-125
Cl8-BZ#202-C13	85		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-18	D	Date Collected:	07/22/10 00:00
Client ID:	105528		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/28/10 15:19
Analytical Date:	08/06/10 23:37		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	ND		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	92		50-125
Cl8-BZ#202-C13	89		50-125

Project Name: Not Specified
Project Number: 17228
Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-19	D	Date Collected:	07/22/10 00:00
Client ID:	105529		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/30/10 12:02
Analytical Date:	08/07/10 06:08		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	49.7		ng/cart	5.00	2.50	2
Trichlorobiphenyls	392		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	371		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	241		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	561		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	613		ng/cart	5.00	2.50	2
Octachlorobiphenyls	138		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	6.50		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	2370		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	84		50-125
Cl8-BZ#202-C13	75		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-20	D
Client ID:	105530	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/07/10 07:15	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/30/10 12:02
Cleanup Method1:	----

Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	10.1		ng/cart	5.00	2.50	2
Trichlorobiphenyls	152		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	118		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	54.4		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	79.6		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	36.7		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	451		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	**230**	Q	50-125
Cl8-BZ#202-C13	**247**	Q	50-125

Project Name: Not Specified
Project Number: 17228
Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-22	D	Date Collected:	07/22/10 00:00
Client ID:	105532		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/30/10 12:02
Analytical Date:	08/07/10 09:28		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	47.9		ng/cart	5.00	2.50	2
Trichlorobiphenyls	244		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	164		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	99.1		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	135		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	51.9		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	742		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	86		50-125
Cl8-BZ#202-C13	75		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-21	D
Client ID:	105531	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/07/10 08:22	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/30/10 12:02
Cleanup Method1:	- - - -
	- - - -
Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	9.00		ng/cart	5.00	2.50	2
Trichlorobiphenyls	139		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	106		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	47.1		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	53.6		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	14.3		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	369		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	77		50-125
Cl8-BZ#202-C13	70		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-23	D
Client ID:	105533	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/07/10 10:35	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/30/10 12:02
Cleanup Method1:	- - - -
	- - - -
Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	13.0		ng/cart	5.00	2.50	2
Trichlorobiphenyls	168		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	124		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	51.2		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	49.5		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	12.9		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	419		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	93		50-125
Cl8-BZ#202-C13	84		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-24	D	Date Collected:	07/22/10 00:00
Client ID:	105534		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/30/10 12:02
Analytical Date:	08/07/10 11:42		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	79.4		ng/cart	5.00	2.50	2
Trichlorobiphenyls	443		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	159		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	83.6		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	104		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	40.0		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	908		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	91		50-125
Cl8-BZ#202-C13	81		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-25	D	Date Collected:	07/22/10 00:00
Client ID:	105535		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/30/10 12:02
Analytical Date:	08/07/10 12:49		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	20.5		ng/cart	5.00	2.50	2
Trichlorobiphenyls	157		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	130		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	88.5		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	144		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	63.9		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	604		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	86		50-125
Cl8-BZ#202-C13	77		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-26	D	Date Collected:	07/22/10 00:00
Client ID:	105536		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/30/10 12:02
Analytical Date:	08/07/10 13:56		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	ND		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	88		50-125
Cl8-BZ#202-C13	82		50-125

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312,3051, 6020, 747A, 7474, 9045C,9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl.

Certificate/Approval Program Summary

Last revised July 19, 2010 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Project Name:	Not Specified	**Lab Number:**	L1011335
Project Number:	17228	**Report Date:**	08/09/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above one half the RL. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at one half the reporting limit (RL) for the sample.

Report Format: DU "J" Qualify to 1/2 the RDL

Project Name: Not Specified **Lab Number:** L1011335

Project Number: 17228 **Report Date:** 08/09/10

GLOSSARY

Acronyms

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

Report Format: DU "J" Qualify to 1/2 the RDL

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1011335-28A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()

*Values in parentheses indicate holding time in days

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1011335-01A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-02A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-03A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-04A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-05A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-06A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-07A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-08A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-09A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-10A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-11A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-12A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-13A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-14A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-15A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-16A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-17A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-18A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-19A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-20A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-21A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-22A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-23A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-24A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-25A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-26A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()
L1011335-27A	PUF Air Cartridge - High or Low	A	N/A	10	Y	Absent	A2-PCBHOMS-8270SIM()

*Values in parentheses indicate holding time in days

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM - Mansfield Lab Associated sample(s): 19-28 Batch: WG425287-2								
Cl8-BZ#204/#200-CAL	94		-		40-140	-		30
Cl6-BZ#156	70		-		40-140	-		30
Cl6-BZ#157	81		-		40-140	-		30
Cl7-BZ#180	82		-		40-140	-		30
Cl8-BZ#201	90		-		40-140	-		30
Cl7-BZ#170	88		-		40-140	-		30
Cl6-BZ#169	71		-		40-140	-		30
Cl9-BZ#208	88		-		40-140	-		30
Cl7-BZ#189	74		-		40-140	-		30
Cl8-BZ#195	89		-		40-140	-		30
Cl8-BZ#194	79		-		40-140	-		30
Cl8-BZ#205	82		-		40-140	-		30
Cl9-BZ#206	81		-		40-140	-		30
Cl10-BZ#209	84		-		40-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Cl3-BZ#19-C13	90				50-125
Cl8-BZ#202-C13	82				50-125

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM - Mansfield Lab Associated sample(s): 19-28 Batch: WG425287-2								
Cl4-BZ#81	90		-		40-140	-		30
Cl6-BZ#151	92		-		40-140	-		30
Cl6-BZ#147/#149	89		-		40-140	-		30
Cl4-BZ#77	88		-		40-140	-		30
Cl5-BZ#107/#123	88		-		40-140	-		30
Cl7-BZ#188	87		-		40-140	-		30
Cl5-BZ#118	74		-		40-140	-		30
Cl6-BZ#146	93		-		40-140	-		30
Cl5-BZ#114	74		-		40-140	-		30
Cl6-BZ#153	102		-		40-140	-		30
Cl5-BZ#105	56		-		40-140	-		30
Cl6-BZ#138	79		-		40-140	-		30
Cl6-BZ#129/#158	95		-		40-140	-		30
Cl7-BZ#187	92		-		40-140	-		30
Cl7-BZ#183	86		-		40-140	-		30
Cl5-BZ#126	64		-		40-140	-		30
Cl7-BZ#174	94		-		40-140	-		30
Cl6-BZ#128	91		-		40-140	-		30
Cl6-BZ#167	87		-		40-140	-		30
Cl8-BZ#202	101		-		40-140	-		30
Cl7-BZ#177	87		-		40-140	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM - Mansfield Lab Associated sample(s): 19-28 Batch: WG425287-2								
Cl4-BZ#50	93		-		40-140	-		30
Cl3-BZ#-31	91		-		40-140	-		30
Cl3-BZ#28	97		-		40-140	-		30
Cl4-BZ#45	95		-		40-140	-		30
Cl4-BZ#52	96		-		40-140	-		30
Cl4-BZ#49	89		-		40-140	-		30
Cl5-BZ#104	78		-		40-140	-		30
Cl4-BZ#47	98		-		40-140	-		30
Cl4-BZ#44	100		-		40-140	-		30
Cl3-BZ#37	64		-		40-140	-		30
Cl5-BZ#121/#95/#88	63		-		40-140	-		30
Cl4-BZ#74	86		-		40-140	-		30
Cl6-BZ#155	84		-		40-140	-		30
Cl4-BZ#70	89		-		40-140	-		30
Cl4-BZ#66	103		-		40-140	-		30
Cl5-BZ#101/#90	80		-		40-140	-		30
Cl4-BZ#56	100		-		40-140	-		30
Cl5-BZ#99	80		-		40-140	-		30
Cl5-BZ#87/#111	65		-		40-140	-		30
Cl6-BZ#154	86		-		40-140	-		30
Cl5-BZ#110	82		-		40-140	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM - Mansfield Lab Associated sample(s): 01-18 Batch: WG424806-2								
Cl9-BZ#206	80		-		40-140	-		30
Cl10-BZ#209	84		-		40-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Cl3-BZ#19-C13	85				50-125
Cl8-BZ#202-C13	84				50-125

PCB Homologs by GC/MS-SIM - Mansfield Lab Associated sample(s): 19-28 Batch: WG425287-2								
Cl1-BZ#1	91		-		40-140	-		30
CL1-BZ#3	91		-		40-140	-		30
Cl2-BZ#4/#10	108		-		40-140	-		30
Cl2-BZ#8	92		-		40-140	-		30
Cl3-BZ#19	89		-		40-140	-		30
Cl3-BZ#18	91		-		40-140	-		30
Cl2-BZ#15	87		-		40-140	-		30
Cl4-BZ#54	98		-		40-140	-		30
Cl3-BZ#29	88		-		40-140	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM - Mansfield Lab	Associated sample(s): 01-18		Batch: WG424806-2					
Cl6-BZ#129/#158	94		-		40-140	-		30
Cl7-BZ#187	90		-		40-140	-		30
Cl7-BZ#183	84		-		40-140	-		30
Cl5-BZ#126	68		-		40-140	-		30
Cl7-BZ#174	92		-		40-140	-		30
Cl6-BZ#128	90		-		40-140	-		30
Cl6-BZ#167	89		-		40-140	-		30
Cl8-BZ#202	102		-		40-140	-		30
Cl7-BZ#177	85		-		40-140	-		30
Cl8-BZ#204/#200-CAL	91		-		40-140	-		30
Cl6-BZ#156	70		-		40-140	-		30
Cl6-BZ#157	81		-		40-140	-		30
Cl7-BZ#180	80		-		40-140	-		30
Cl8-BZ#201	88		-		40-140	-		30
Cl7-BZ#170	87		-		40-140	-		30
Cl6-BZ#169	72		-		40-140	-		30
Cl9-BZ#208	87		-		40-140	-		30
Cl7-BZ#189	74		-		40-140	-		30
Cl8-BZ#195	86		-		40-140	-		30
Cl8-BZ#194	78		-		40-140	-		30
Cl8-BZ#205	81		-		40-140	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM - Mansfield Lab Associated sample(s): 01-18 Batch: WG424806-2								
Cl6-BZ#155	91		-		40-140	-		30
Cl4-BZ#70	92		-		40-140	-		30
Cl4-BZ#66	102		-		40-140	-		30
Cl5-BZ#101/#90	88		-		40-140	-		30
Cl4-BZ#56	100		-		40-140	-		30
Cl5-BZ#99	87		-		40-140	-		30
Cl5-BZ#87/#111	73		-		40-140	-		30
Cl6-BZ#154	92		-		40-140	-		30
Cl5-BZ#110	89		-		40-140	-		30
Cl4-BZ#81	92		-		40-140	-		30
Cl6-BZ#151	92		-		40-140	-		30
Cl6-BZ#147/#149	88		-		40-140	-		30
Cl4-BZ#77	83		-		40-140	-		30
Cl5-BZ#107/#123	88		-		40-140	-		30
Cl7-BZ#188	85		-		40-140	-		30
Cl5-BZ#118	74		-		40-140	-		30
Cl6-BZ#146	91		-		40-140	-		30
Cl5-BZ#114	75		-		40-140	-		30
Cl6-BZ#153	100		-		40-140	-		30
Cl5-BZ#105	57		-		40-140	-		30
Cl6-BZ#138	78		-		40-140	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 17228

Lab Number: L1011335

Report Date: 08/09/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM - Mansfield Lab Associated sample(s): 01-18 Batch: WG424806-2								
Cl1-BZ#1	83		-		40-140	-		30
CL1-BZ#3	86		-		40-140	-		30
Cl2-BZ#4/#10	105		-		40-140	-		30
Cl2-BZ#8	88		-		40-140	-		30
Cl3-BZ#19	91		-		40-140	-		30
Cl3-BZ#18	89		-		40-140	-		30
Cl2-BZ#15	88		-		40-140	-		30
Cl4-BZ#54	98		-		40-140	-		30
Cl3-BZ#29	87		-		40-140	-		30
Cl4-BZ#50	92		-		40-140	-		30
Cl3-BZ#-31	89		-		40-140	-		30
Cl3-BZ#28	97		-		40-140	-		30
Cl4-BZ#45	94		-		40-140	-		30
Cl4-BZ#52	92		-		40-140	-		30
Cl4-BZ#49	87		-		40-140	-		30
Cl5-BZ#104	86		-		40-140	-		30
Cl4-BZ#47	98		-		40-140	-		30
Cl4-BZ#44	99		-		40-140	-		30
Cl3-BZ#37	62		-		40-140	-		30
Cl5-BZ#121/#95/#88	68		-		40-140	-		30
Cl4-BZ#74	87		-		40-140	-		30

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 08/07/10 03:54
Analyst: JS

Extraction Method: EPA 3540C
Extraction Date: 07/30/10 12:02
Cleanup Method1: - - - -
Cleanup Date1:
Cleanup Method2: - - - -
Cleanup Date2:

Parameter	Result	Qualifier	Units	RL	MDL
PCB Homologs by GC/MS-SIM - Mansfield Lab for sample(s): 19-28 Batch: WG425287-1					
Monochlorobiphenyls	ND		ng/cart	5.00	2.50
Dichlorobiphenyls	ND		ng/cart	5.00	2.50
Trichlorobiphenyls	ND		ng/cart	5.00	2.50
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50
Octachlorobiphenyls	ND		ng/cart	5.00	2.50
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50
Decachlorobiphenyl	ND		ng/cart	5.00	2.50
Total Homologs	ND		ng/cart	5.00	2.50

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	93		50-125
Cl8-BZ#202-C13	84		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 08/05/10 20:03
Analyst: JS

Extraction Method: EPA 3540C
Extraction Date: 07/28/10 15:17
Cleanup Method1: ----
Cleanup Date1:
Cleanup Method2: ----
Cleanup Date2:

Parameter	Result	Qualifier	Units	RL	MDL
PCB Homologs by GC/MS-SIM - Mansfield Lab for sample(s): 01-18 Batch: WG424806-1					
Monochlorobiphenyls	ND		ng/cart	5.00	2.50
Dichlorobiphenyls	ND		ng/cart	5.00	2.50
Trichlorobiphenyls	ND		ng/cart	5.00	2.50
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50
Octachlorobiphenyls	ND		ng/cart	5.00	2.50
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50
Decachlorobiphenyl	ND		ng/cart	5.00	2.50
Total Homologs	ND		ng/cart	5.00	2.50

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	88		50-125
Cl8-BZ#202-C13	84		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-28	D
Client ID:	95350	
Sample Location:	Not Specified	
Matrix:	Air Cartridge	
Analytical Method:	1,8270C-SIM	
Analytical Date:	08/07/10 16:10	
Analyst:	JS	

Date Collected:	07/22/10 00:00
Date Received:	07/23/10
Field Prep:	Not Specified
Extraction Method:	EPA 3540C
Extraction Date:	07/30/10 12:02
Cleanup Method1:	- - - -
	- - - -
Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	10.0		ng/cart	5.00	2.50	2
Trichlorobiphenyls	83.2		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	73.7		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	89.3		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	111		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	31.5		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	398		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	91		50-125
Cl8-BZ#202-C13	87		50-125

Project Name: Not Specified
Project Number: 17228

Lab Number: L1011335
Report Date: 08/09/10

SAMPLE RESULTS

Lab ID:	L1011335-27	D	Date Collected:	07/22/10 00:00
Client ID:	95349		Date Received:	07/23/10
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Air Cartridge		Extraction Method:	EPA 3540C
Analytical Method:	1,8270C-SIM		Extraction Date:	07/30/10 12:02
Analytical Date:	08/07/10 15:03		Cleanup Method1:	- - - -
Analyst:	JS			- - - -
			Cleanup Method2:	

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	ND		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	89		50-125
Cl8-BZ#202-C13	84		50-125

Serial No:20110711:52

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 22 JUL 10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: ALPHA

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 17228

The cost of this analysis will be covered by EH&E Purchase Order # 17228

For EH & E Data Coordinator - URGENT DATA ☐

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
17	105527	AIR/PUF	EPA TO-10A FOR HOMOLOGS	1293 L
18	105528	"	"	1284 L
19	105529	"	"	1317 L
20	105530	"	"	1320 L
21	105531	"	"	1298 L
22	105532	"	"	1320.65 L
23	105533	"	"	1314 L
24	105534	"	"	1335.9 L
25	105535	"	"	1317 L
26	105536	"	"	1320 L
27	95349	"	"	Ø L
28	95350	"	"	

Special instructions:

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES** ☐ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient mfraga@eheinc.com, tnegrath@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 7/22/10

Received by: P. Gilbert of (company name) Alpha Date: 7/23/10 14:30

Relinquished by: P. Gilbert of (company name) Alpha Date: 7/23/10 17:35

Received by: _____ of (company name) ALPHA Date: 7/23/10 1735

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 2 of 2

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Serial No:08091011:52

L1011335

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 22 Jul 10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: ALPHA

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 17228

The cost of this analysis will be covered by EH&E Purchase Order # 17228

For EH & E Data Coordinator - URGENT DATA ☐

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
1	105511	AIR / AVF	EPA TO-10A FOR HOMOLOGS	1338 L
2	105512			1341 L
3	105513			1332 L
4	105514			1309.8 L
5	105515			1341 L
6	105516			1320 L
7	105517			1335 L
8	105518			Ø L
9	105519			1341 L
10	105520			1279 L
11	105521			1290 L
12	105522			1287 L
13	105523			1287 L
14	105524			1287 L
15	105525			1293 L
16	105526			1287 L

Special instructions:

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES** ☐ Electronic transfer - datacoordinator@ehsinc.com

☒ Additional report recipient mfragala@ehsinc.com, tmegrath@ehsinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 7/22/10

Received by: P. Gilbert of (company name) Alpha Date: 7/23/10 14:30

Relinquished by: P. Gilbert of (company name) Alpha Date: 7/23/10 17:35

Received by: [illegible] of (company name) ALPHA Date: 7/23/10 1735

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

 WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Print page | Close

FedEx

Detailed Results

Tracking no.: 870423330067 Select time format: **12H**

Delivered

Delivered
Signed for by: R.GUITENS

Shipment Dates

Ship date Aug 17, 2010
Delivery date Aug 18, 2010 9:35 AM

Destination

Signature Proof of Delivery

Shipment Facts

Service type	Priority Envelope	Delivered to	Mailroom
		Reference	17228

Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Aug 18, 2010 9:35 AM	**Delivered**		
Aug 18, 2010 8:11 AM	On FedEx vehicle for delivery	SOUTH BOSTON, MA	
Aug 18, 2010 7:06 AM	At local FedEx facility	SOUTH BOSTON, MA	
Aug 17, 2010 11:40 PM	At local FedEx facility	EAST BOSTON, MA	
Aug 17, 2010 9:20 PM	At dest sort facility	EAST BOSTON, MA	
Aug 17, 2010 8:50 PM	Left FedEx origin facility	NEEDHAM, MA	
Aug 17, 2010 6:20 PM	Picked up	NEEDHAM, MA	